

**79th Society of Exploration
Geophysicists International
Exposition and Annual
Meeting 2009**

(SEG Houston 2009)

**Houston, Texas, USA
25 – 30 October 2009**

Volume 1 of 7

ISBN: 978-1-61567-566-1

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2009) by the Society of Exploration Geophysicists
All rights reserved.

Printed by Curran Associates, Inc. (2009)

For permission requests, please contact the Society of Exploration Geophysicists
at the address below.

Society of Exploration Geophysicists
P. O. Box 702740
Tulsa, Oklahoma 74170-2740

Phone: (918) 497-5554
Fax: (918) 497-5557

www.seg.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Optimizing Vibroseis Efficiency and Quality

Volume 1

ACQ 1.1 (0001-0005)

Distance separated simultaneous sweeping: Efficient 3D vibroseis acquisition in Oman

Jack Bouska, BP

ACQ 1.2 (0006-0010)

A decade of field trials in the Panhandle of Oklahoma and the development of ZenSeis

P. M. Eick, P. G.*, J. Brewer, S. K. Chiu, and S. A. Shaw, ConocoPhillips

ACQ 1.3 (0011-0015)

Vibroseis source signature uncertainty and its impact on simultaneous sourcing

S. A. Shaw*, S. K. Chiu, P. M. Eick, P. G., M. Davidson, and J. Brewer, ConocoPhillips

ACQ 1.4 (0016-0020)

Load cell system test experience: Measuring the vibrator ground force on land seismic acquisition

S. Shan*, P. M. Eick, P. G., J. D. Brewer, X. Zhu, and S. A. Shaw, ConocoPhillips

Marine/OBC Wide Azimuth Advances

ACQ 2.1 (0041-0045)

What is the next step after WAZ for exploration in the Gulf of Mexico?

Nick Moldoveanu and Jerry Kapoor, WesternGeco

ACQ 2.2 (0046-0050)

New opportunities of 4C ocean bottom seismics in shallow water environment of the Arabian Gulf: Results from comparisons of field data and full-waveform elastic modeling

Yuefeng Sun*, Texas A&M U; Karl Berteussen, United Arab Emirates Petroleum Inst

ACQ 2.3 (0051-0055)

Source separation of simultaneous source OBC data

Y. Kim*, I. Gruzinov, M. Guo, and S. Sen, TGS-Nowpec

ACQ 2.4 (0056-0060)

Survey design for blended acquisition

Gerrit Blacquièrè*, Guus Berkhout, and Eric Verschuur, Delft U

ACQ 2.5 (0061-0065)

A Free Lunch While Designing Experiments to Estimate Azimuthal Anisotropy

Darrell Coles

ACQ 1.5 (0021-0025)

Improved quality control of vibroseis sources using vibrator-control system generated files

F. Janiszewski*, J. Brewer, P. Eick, P. G., R. Sfara, and S. Shan, ConocoPhillips

ACQ 1.6 (0026-0030)

Validating land data quality of simultaneous multiple vibrator acquisition

S. K. Chiu*, S. A. Shaw, P. M. Eick, P. G., and J. D. Brewer, ConocoPhillips

ACQ 1.7 (0031-0035)

Simultaneous sources separation via multidirectional vector-median filter

Shoudong Huo, Yi Luo*, and Panos Kelamis, Saudi Aramco

ACQ 1.8 (0036-0040)

Slip sweep harmonic noise rejection on correlated shot data

C. Sicking*, Weinman; T. Fleure, Global; S. Nelan and B. McLain, Weinman

ACQ 2.6 (0066-0070)

Tulip Field 3D coil shooting survey acquisition review: Single vessel full azimuth acquisition offshore Indonesia

M. Buia and R. Vercesi, Eni; T. Bunting, M. Garden, and M. Tham*, WesternGeco

ACQ 2.7 (0071-0075)

Full azimuth circular survey in Indonesia: Survey design, onboard illumination QC, and preliminary processing results

M. Buia*, L. Mapelli, and E. Tozzi, ENI; T. Bunting, M. Garden, and M. Tham, WesternGeco

ACQ 2.8 (0076-0080)

A simulated wide azimuth simultaneous shooting experiment

Chu-Ong Ting* and Wei Zhao, CGGVeritas

Land Methods and Equipment

ACQ 3.1 (0081-0085)

Evolution of the land seismic super crew

P. Matheny*, R. Sambell, S. Mahrooqi, S. Yarubi, and S. Abri, Petroleum Development Oman

ACQ 3.2 (0086-0089)

Virtual seismic arrays

Ibrahim Abdulaziz Alhukail and Luc Ikelle*, Texas A&M U

ACQ 3.3 (0090-0093)

Solving the multiobjective acquisition problem through the use of cable-free acquisition technology

Jason Criss* and Roger Haston, Ascend Geo

ACQ 3.4 (0094-0098)

The case for longer sweeps in vibrator acquisition

M. Lansley, Sercel; J. Gibson, F. Lin*, A. Egreteau, and J. Meunier, CCGVeritas

Marine: Improving Imaging and Resolution

ACQ 4.1 (0117-0121)

Large eddy simulation of turbulence flow noise on streamers

Per Kjellgren* and Lars Davidson, Chalmers U

ACQ 4.2 (0122-0126)

Discussion about offset homogeneity and wavefield sampling continuity

W. Yin*, Y. He, W. Zhen, G. Li, L. Zhang, and J. Liu, BGP

ACQ 4.3 (0127-0131)

The contribution of longer offsets to subsalt imaging

H-Y Li, J. Kapoor, N. Moldoveanu, and B. Dragoset, WesternGeco

ACQ 4.4 (0132-0136)

Increasing resolution with a new method for efficient broadband marine acquisition and processing

E. Kragh*, Schlumberger; M. Svendsen, D. Kapadia, G. Busanello, and R. Goto, WesternGeco; E. Muzyert, Schlumberger; T. Curtis, WesternGeco

ACQ 3.5 (0099-0103)

Seismic source comparison for compressional and converted-wave generation at Spring Coulee, Alberta

Gabriela Suarez* and Robert Stewart, U of Calgary

ACQ 3.6 (0104-0108)

Analysis of field tests with an improved hydraulic vibrator

Michael Hall, ION

ACQ 3.7 (0109-0111)

Independent simultaneous sweeping in Libya

D. Howe, M. Foster, T. Allen, I. Jack, D. Buddery, A. Choi, R. Abma, T. Manning, and M. Pfister

ACQ 3.8 (0112-0116)

Seismic sans frontières — Cross-border 3D acquisition in Tierra del Fuego

Mike Yates*, Rick Johnson, and Dave Monk, Apache

ACQ 4.5 (0137-0141)

Conventional versus dual-sensor streamer data deghosting: A case study from the Haltenbanken dual-streamer acquisition

H. Tabti, A. Day*, T. Schade, M. Lesnes, and T. Høy, PGS

ACQ 4.6 (0142-0146)

Dual-sensor streamer data: Calibration, acquisition QC, and attenuation of seismic interferences and other noises

G. Cambois*, D. Carlson, C. Jones, M. Lesnes, W. Söllner, and H. Tabti, PGS

ACQ 4.7 (0147-0151)

The optimal deghosting algorithm for broadband data combination

A. K. Özdemir*, WesternGeco; A. Özbek, Schlumberger; P. Caprioli, WesternGeco; J. O. A. Robertsson, and E. Kragh, Schlumberger

ACQ 4.8 (0152-0156)

Multilevel airgun array: A simple and effective way to enhance the low frequency content of marine seismic data

G. Cambois*, A. Long, G. Parkes, T. Lundsten, A. Mattsson, and E. Fromyr, PGS

Designing to Provide Solutions

ACQ P1.1 (0157-0161)

Lessons learned from acquiring and processing a full-azimuth 3D land seismic survey in Kuwait

Ghassan Rached, Jarrah Al-Genaie,* and Bader Al-Ajmi, Kuwait Oil

ACQ P1.2 (0162-0166)

The role of acquisition geometry and components for imaging microseismicity

Zhihui Zou* and Huawei Zhou, Texas Tech U/China U of Geosciences; F. Jiang and H. Liu, China U of Geosciences

ACQ P1.3 (0167-0170)

Sensor saturation solution for fiber-optic ocean bottom seismic systems

A.V. Strudley* and P. Nash, Stingray

ACQ P1.4 (0171-0175)

Application of general spatial resolution in seismic survey design

F. Dong*, H. Chen, J. Liu, C. Ni, G. Chen, and H. Niu, BGP

Theory

ANI 1.1 (0196-0200)

Nonuniqueness of travelt ime inversion in elliptically anisotropic media

Vladimir Grechka, Shell

ANI 1.2 (0201-0205)

Automatic anisotropic velocity analysis for full azimuth gathers using AVAZ

Anat Canning* and Alex Malkin, Paradigm

ANI 1.3 (0206-0210)

Determination of stiffness tensor of shale from logging data

Irina Bayuk*, Russian Academy of Sciences; Mike Ammerman, Devon; Evgeny Chesnokov, U of Houston

ANI 1.4 (0211-0215)

Interval VTI and orthorhombic anisotropic parameter estimates from walkaway/3D VSP data

Emanouil Blias, VSFusion

ACQ P1.5 (0176-0180)

Seismic acquisition methods for improving signal-to-noise ratio in Tadong Desert area

X. Chen*, H. Zhong, H. Su, and J. Zhang, BGP CNPC; M. Cai, CNPC

ACQ P1.6 (0181-0185)

Target oriented approach for illumination analysis using wave equation via FDM

G. C. Alves*, A. Bulcão, D. M. Soares Filho, C. E. Theodoro, L. A. Santos, Petrobras

ACQ P1.7 (0186-0190)

Accurate imaging through integration of subsurface illumination and optimal data acquisition

Riaz Alai*, Petrotarget; Jan Thorbecke, Delft U

ACQ P1.8 (0191-0195)

Higher dimensional blue-noise sampling schemes for curvelet-based seismic data recovery

G. Tang*, Tsinghua U/UBC; R. Shahidi and F. J. Hermann, UBC; J. Ma, Tsinghua U

ANI 1.5 (0216-0220)

The low-frequency asymptotic velocity of pseudo-Rayleigh, flexural, and screw modes in anisotropic formations

Hengshan Hu* and Xiao He, Harbin Inst. of Technology

ANI 1.6 (0221-0225)

Localized anisotropic tomography with well information in VTI media

A. Bakulin*, M. Woodward, D. Nichols, K. Osypov, and O. Zdraveva, WesternGeco/Schlumberger

ANI 1.7 (0226-0230)

Can we distinguish TTI and VTI media?

A. Bakulin*, M. Woodward, K. Osypov, D. Nichols, and O. Zdraveva, WesternGeco/Schlumberger

ANI 1.8 (0231-0235)

Role of the inhomogeneity angle in anisotropic attenuation analysis

Jyoti Behura and Ilya Tsvankin, Colorado School of Mines

Observation And Interpretation

ANI 2.1 (0236-0240)

A pilot full-azimuth survey for a fractured carbonate reservoir, in northwest Raudhatain area, Kuwait

Pradyumna Dutta*, Osman Al-Khaled, and Jarrah Al-Genai, Kuwait Oil; Heloise Lynn, Lynn Inc

ANI 2.2 (0241-0245)

Elastic properties of four shales reconstructed from laboratory measurements at unloaded conditions

Irina Bayuk*, Russian Academy of Sciences; Evgeny Chesnokov, U of Houston; Mike Ammerman, Devon; Nikolay Dyaur, U of Houston

ANI 2.3 (0246-0250)

From isotropic to anisotropic: Puma/Mad Dog wide azimuth data case study

J. Bowling, BP America; S. Ji* and D. Lin, CGGVeritas; M. Reasnor, M. Staines, and N. Burke, BP America

ANI 2.4 (0251-0255)

Fractured carbonate reservoir characterization using P-P azimuthal anisotropy: Interpreting azimuthal phase

Heloise Lynn*, Lynn Inc; Pradyumna Dutta and Osman Al-Khaled, Kuwait Oil

ANI 2.5 (0256-0259)

Azimuthal AVA analysis using full-azimuth 3D angle gathers

Anat Canning* and Alex Malkin, Paradigm

ANI 2.6 (0260-0264)

Observation of azimuthal anisotropy on multicomponent Atlantis node seismic data

Samik Sil*, Ravi Srivastava, and Mrinal Sen, U of Texas-Austin

ANI 2.7 (0265-0269)

Seismic anisotropy measurements and theoretical model of fractured rock using multidepth multiazimuth walk-away VSP from Outokumpu, Finland

H. Schijns* and D. R. Schmitt, U of Alberta; P. Heikkinen, U of Helsinki; I. T. Kukkonen, Geological Survey of Finland

ANI 2.8 (0270-0274)

A high-resolution shear wave anisotropy study of the Mesaverde tight gas reservoir, Rulison Field, Colorado

P. Singh, Colorado School of Mines; P. Williamson, E. Sadeghi, and J.-L. Boelle, Total

Theory, Observation, Interpretation

ANI P1.1 (0275-0280)

The anisotropic resistivity and the electric responses of the fractured formation

Jinson Shen* and Benyu Su, China U of Petroleum

ANI P1.2 (0281-0285)

Moveout approximation for HTI/VTI layered media

Igor Ravve* and Zvi Koren, Paradigm

ANI P1.3 (0286-0290)

Effective model for HTI/VTI layered media

Zvi Koren*, Igor Ravve, and Ronit Levy, Paradigm

ANI P1.4 (0291-0295)

High-order rotated staggered finite difference modeling of 3D elastic wave propagation in general anisotropic media

Chunlei Chu*, Paul Stoffa, and Roustam Seif, U of Texas-Austin

ANI P1.5 (0296-0300)

Interval anisotropic parameters estimation in a least squares sense — Application on Congo MTPN real data set

Maurizio Ferla* and Patrizia Cibin, Eni

ANI P1.6 (0301-0305)

TTI/VTI anisotropy parameters estimation by focusing analysis, Part I: Theory

J. Cai*, Y. He, Z. Li, B. Wang, M. Guo, TGS-Nopec

ANI P1.7 (0306-0310)

Determination of travelttime parameters in VTI media

Rafael Aleixo* and Jörg Schleicher, U of Campinas; Jesse Costa, Federal U of Para

ANI P1.8 (0311-0315)

TTI/VTI anisotropy estimation by focusing analysis, Part II: Application

Y. He*, J. Cai, W. Whiteside, Z. Li, M. Guo, B. Wang, J. Xie, K. Yoon, and E. Nessler, TGS-Nopec

New Developments

AVO 1.1 (0316-0320)

Seismic AVO modeling and analysis for thin interlayer reservoir

Jingye Li*, Xiaohong Chen, and Rao Huang, China U of Petroleum

AVO 1.2 (0321-0325)

A new ray-based offset-to-angle transform for anisotropic medium and its implication in the prestack waveform inversion of seismic data

Pradip Kumar Muhhopadhyay* and Subhashis Mallick, U of Wyoming

AVO 1.3 (0326-0330)

3D angle-domain common imaging gathers during Kirchhoff PSTM

Zhen Zou* and Hong Liu, Chinese Academy of Sciences; Wei Hua, PetroChina

AVO 1.4 (0331-0335)

Pore-fluid quantification: Unconsolidated vs. consolidated sediments

Fred Hilterman*, Geokinetics; Zhengyun Zhou, U of Houston

Sonic Logging

BG 1.1 (0356-0360)

Borehole acoustic dipole response with drilling-induced vertical fractures

Yibing Zheng, Xiaoming Tang, and Douglas Patterson, Baker Hughes

BG 1.3 (0361-0365)

Estimation of borehole fluid slowness using sonic array waveforms

Henri-Pierre Valero, Hugues Djikpesse* and Bikash Sinha, Schlumberger-Doll

BG 1.4 (0366-0370)

Modeling acoustic response of deepwater completions using spectral method

Florian Karpfinger*, Curtin U; Andrey Bakulin, WesternGeco; Boris Gurevich, Curtin U/CSIRO Petroleum

AVO 1.5 (0336-0340)

Velocities crossover due to geopressure: implication to AVO assessment

Selim Shaker, Geopressure Analysis Services

AVO 1.6 (0341-0345)

Frequency-dependent AVO inversion

Adam Wilson*, Mark Chapman, and Xiang-Yang Li, British Geological Survey

AVO 1.7 (0346-0350)

Phase scanning method for detuning in thin bed

F. Li and S. Cao, China U of Petroleum; D. Han, U of Houston; J. Yao, CNOOC

AVO 1.8 (0351-0355)

The impact of processing on AVO and primary waveform extraction for AVO

Uxin Wang* and Xingmou Wang, Geophysical Research Inst of Shengli Oilfield; Qizhen Du, China U of Petroleum

BG 1.5 (0371-0375)

Modeling sonic imaging of plane layering from an oblique borehole

Robert Burrige, U of New Mexico; Chung Chang* and Yong-Hua Chen, Schlumberger-Doll

BG 1.6 (0376-0380)

Semblance criterion modification to incorporate signal energy threshold

Sandip Bose, Henri-Pierre Valero, and Alain Dumont, Schlumberger

BG 1.7 (0381-0385)

Sonic dispersion curves identify TIV anisotropy in vertical wells

H.-P. Valero*, T. Ikegami, B. Sinha, S. Bose, and T. Plona, Schlumberger

Applications

BG 2.1 (0386-0390)

Crosswell electromagnetic interpretation using 2.5D model-based inversion algorithm

Maokun Li, Aria Abubakar, and Tarek M. Habashy, Schlumberger-Doll

BG 2.2 (0391-0395)

Relationship of coal bed permeability with vertical stress from well log data: A case study from Raniganj coal field, India

R. Chatterjee*, Indian School of Mines U; S. K. Gupta and P. K. Pal, Central Mine Planning and Design Inst; V. K. Srivastava, Indian School of Mines U

BG 2.3 (0396-0400)

A modeling study of a borehole radar system as a permanent downhole sensor

Mattia Miorali* and Evert Slob, Delft U; Rob Arts, Delft U/TNO

BG 2.4 (0401-0405)

Processing method and field case of multipole acoustic well logging in unconsolidated shallow gas formation

Z. Liu, CNOOC; Y. Su, China U of Petroleum; R. Qin, CNOOC; J. Sun and C. Zhuang, China U of Petroleum

Borehole Electrical Modeling

BG 3.1 (0426-0430)

Apparent dip determination from triaxial induction dip-meter measurements

Terry Hagiwara, Terry R&D

BG 3.2 (0431-0435)

Rigorous 3D inversion of tensor electrical and magnetic induction well logging data in inhomogeneous media

Alexander Gribenko* and Michael Zhdanov, U of Utah

BG 3.3 (0436-0440)

Fast finite-difference simulation of 3D borehole EM fields using scattered potentials

Junsheng Hou* and Michael Bitter, Halliburton

BG 2.5 (0406-0410)

Time-lapse VSP data processing for monitoring CO₂ injection

Arthur Cheng, Cambridge GeoSciences; Lianjie Huang and Jim Rutledge, Los Alamos Nat'l Lab

BG 2.6 (0411-0415)

Real-time completion monitoring of deepwater wells: Part II – Active and passive surveillance

A. Bakulin, WesternGeco/Schlumberger; A. Sidorov, B. Kashtan, and Dmitry Alexandrov*, St. Petersburg State U; M. Jaaskelainen, SensorTran

BG 2.7 (0416-0420)

Real-time completion monitoring of deepwater wells: Part III – Comparison of experiments and modeling

A. Bakulin, WesternGeco/Schlumberger; D. Alexandrov*, A. Sidorov, and B. Kashtan, St. Petersburg State U; M. Jaaskelainen, SensorTran

BG 2.8 (0421-0425)

Shear-wave imaging using cross-dipole acoustic logging tool

X. M. Tang and D. Patterson, Baker Hughes

BG 3.4 (0441-0445)

Hysteresis in electrical parameters of saline-saturated homogeneous and layered unconsolidated sand, 200 Hz to 3 MHz

M. Kavian*, E. C. Slob, and W. A. Mulder, Delft U

BG 3.5 (0446-0450)

Separation of 3D effects for new generation wireline and LWD resistivity tools

Sofia Davydycheva, R&D3DEM

BG 3.6 (0451-0455)

Analysis of tilted-coil eccentric LWD tool response using a fast integral equation method

Xiao Chun Nie, Ning Yuan, and Richard Liu, U of Houston

Methods in Borehole Geophysics

BG P1.1 (0456-0460)

Simultaneous large array 3D-VSP and full azimuth 3D surface seismic acquisition: A case history of igneous rock reservoir exploration

G. Xu*, G. Liu, and Y. Chen, BGP CNPC; Z. Xu, CNPC

BG P1.2 (0461-0465)

A curve-fitting method for analyzing dispersion characteristics of guided elastic waves

X. M. Tang, C. Li, and D. Patterson, Baker Hughes

BG P1.3 (0466-0471)

Estimation of formation horizontal stress magnitudes using radial profiles of shear slownesses

Bikash Sinha, Tom Bratton, and Shannon Higgins, Schlumberger

BG P1.4 (0472-0476)

3D induction log simulation with Octree fractal grids

Alexander Bespalov, Baker Hughes

BG P1.5 (0477-0481)

The effects of magnetic mud invasion on induction logs

Guoyu Hu* and Ingo Geldmacher, Weatherford

BG P1.6 (0482-0486)

3D finite-difference time-domain simulations of well logging problems on graphic processing unit

A. Mendoza, R. Qiang, and J. Chen*, U of Houston; D. Wu, Halliburton

BG P1.7 (0487-0491)

Modeling of radial profile of OBM filtrate invasion and assessment of the invasion effects on wireline logs in gas reservoir

Yujin Zhang*, Fugro-Jason; Mukesh Gupta, Fugro Geoscience

BG P1.8 (0492-0496)

The potential of potential field interferometry

Evert Slob*, Colorado School of Mines/Delft U; Roel Snieder, Colorado School of Mines

Processing and Integration for Better Interpretation

CH 1.1 (0497-0501)

Seismic wave propagation in porous and layered medium — A case study of a physical model based on a Daqing reservoir, China

Bona Wu and Shangxu Wang, China U of Petroleum; Xuri Huang*, SunRise PetroSolutions

CH 1.2 (0502-0506)

Application of integrated statics approach for volcanic rock developed in near surface: Case study from Fushan sag, Hainan, China

B. Zhang*, M. Zhou, T. Zhang, J. Guo, and T. Zeng, BGP

CH 1.3 (0507-0511)

A comparison of vintage hydrophone seismic and dual-sensor seismic offshore Cyprus

Øystein Lie* and Per Helge Semb, PGS

CH 1.4 (0512-0516)

Subsalt exploration in the deepwater Gulf of Mexico: Integrating potential field and seismic data to predict the location of salt-cored antiforms below the Wilcox Formation

Alex Blacque*, Rao Yalamanchili, and Kenneth Mohn, Fugro

CH 1.5 (0517-0521)

Anisotropic seismic depth migration to aid tight gas prospectivity in the mountain front region of the Anadarko Basin

A. Gangopadhyay*, R. Lauck, and F. Wirnkar, BP; T. C. Stiteler, consultant; R. Berryman, M. Jaffke, P. Ng, J. Rodriguez, J. Stein, and B. Thomas, Geotrace; Frank Mixon, Mixon Enterprises

CH 1.6 (0522-0526)

The case for depth imaging all 3D data

J. Young, G. Johnson, S. Klug, and J. Mathewson, WesternGeco

CH 1.7 (0527-0531)

Improved imaging through anisotropic depth migration and high-resolution shallow tomography in lieu of refraction statics in South Timbalier Trench area of Gulf of Mexico: A case history

G. Rodriguez, S. Yang, D. Yang, Q. Zhang, and S. Hightower, TGS-NOPEC

CH 1.8 (0532-0536)

Unlocking the potential of WAZ data at the Tonga discovery with TTI reverse time migration

Tony Huang* and Bin Yu, CGGVeritas

Interpretation

CH 2.1 (0537-0541)

Baseline geophysical and ecological mapping of the Lower Hackensack River System in New Jersey

W. Murphy III*, W. B. Ward, B. Boyd, G. Fleming, W. Murphy IV, R. Nolen-Hoeksema, M. Art, and D. A. Rosales, e4sciences|Earthworks

CH 2.2 (0542-0546)

The value of geophysics in the history of production at Bay Marchand Field

William Abriel* and William Haworth, Chevron

CH 2.3 (0547-0551)

Understanding fractures through seismic data: north Kuwait case study

S. R. Narhari*, A. L. Al-Kandari, V. K. Kidambi, S. Al-Ashwak, B. Al-Qadeeri, and C. Pattnaik, Kuwait Oil

CH 2.4 (0552-0556)

A stratigraphic prospect — Reducing the risk

Nick Pillar, IkonScience

CH 2.5 (0557-0561)

Improving seismic calibration and geomechanical models through characterization of anisotropy using single- and multiwell data: Case study in Forties Field, UK

A. Donald* and A. Paxton, Schlumberger; D. Keir and K. Koster, Apache

CH 2.6 (0562-0566)

Amplitude envelope and fault zone reflection phenomenon

Osareni Ogiesoba* and Bruce Hart, McGill U

CH 2.7 (0567-0571)

Pay sand mapping using seismic multiattribute calibration proved to be effective from development to near-field exploration stages: A case study from De Soto Canyon, Gulf Of Mexico

E. Pavanel*, M. Fervari, A. Corrao, M. Gallagher, and B. Ciurlo, Eni

CH 2.8 (0572-0576)

The 10 February 2006 “Green Canyon” earthquake: A case history of an unusual seismic event

Joe Dellinger*, BP; John Blum, Scripps Institution of Oceanography; Meredith Nettles, Lamont Doherty Earth Observatory

Imaging, Inversion, Interpretation

CH P1.1 (0577-0581)

Seismic inversion applied to geopressure prediction in the area with structure uplifting and erosion-construction of formation pressure gradient system of the Plio-Pleistocene strata, south-western Taiwan

S. C. Fuh*, T. Y. Chang, Y. L. Yang, J. Y. Lin, and S. C. Liang, Chinese Petroleum Corp

CH P1.2 (0582-0587)

New inversion methodology improves tie line matches on 2D surveys

Jaime Stein, John DuBose, and Kyle Brock, Geotrace

CH P1.3 (0588-0592)

Seismic imaging in the Panjin municipal area, northeast China: Case study

W. Yang, B. Liu, J. Yu, W. Hao, and C. Sun*, CNPC/Reliable GeoInfo

CH P1.4 (0593-0597)

Application of hydrocarbon detection technology based on double-phase medium theory

X. Hu*, Y. Liang, C. Tao, X. Liu, and K. Lang, BGP CNPC

CH P1.5 (0598-0602)

Use of spectral decomposition in seismic interpretation for finding out fluvial channel sand body: A case study from Upper Assam Shelf Basin, India

A. K. Verma*, M. Pereira, B. R. Bharali, A. K. Khanna, and R. Dasgupta, Oil India

CH P1.6 (0603-0607)

Rapid, large scale depth imaging in the Santos Basin

C. Gerrard*, J. Cramer, K. Sherwood, and N. Weber, PGS

CH P1.7 (0608-0612)

Seismic-based lithology and fluid delineation of the ROK reservoir sand, shallow offshore Niger Delta

P. O. Nwogbo*, M. Omudu, R. Dike, S. Olotu, and N. Osayande, Shell

Volume 2

CH P1.8 (0613-0618)

Mapping igneous intrusive and extrusive from 3D seismic data

V. Pena, S. Sarkar, and K. J. Marfurt, U of Oklahoma; S. Chávez-Pérez, Instituto Mexicano del Petróleo

Concepts, Measurements, and Integration

CH P2.1 (0619-0623)

Velocity dispersion in a heavy oil sandstone

Miryam Ortiz-Osornio* and Douglas Schmitt, U of Alberta-Edmonton

CH P2.2 (0624-0628)

Geophysical and geological QC in seismic data processing

Jun Gao*, Yun Ling, and Desheng Sun, BGP CNPC

CH P2.3 (0629-0633)

Advances in seismic data acquisition and processing – Kuwait example

Adel El-Emam* and Khaled Shams Al-Deen, Kuwait Oil

CH P2.4 (0634-0638)

Processing dual sensor streamer data from an ultradeep water area offshore Guyana

J. Kinkead*, L. F. Cramer, Q. Truong, and D. Carlson, PGS

CH P2.5 (0639-0643)

Freedom wide-azimuth processing and imaging: A case history study of WAZ imaging in Mississippi Canyon, Gulf of Mexico

S. Baldock*, R. Camp, J. Cai, B. Wang, and X. Ma, TGS-NOPEC

3D EM Modeling

EM 1.1 (0659-0663)

A finite element algorithm for 3D transient electromagnetic modeling

Evam Um* and Jerry Harris, Stanford U; David Alumbaugh, Schlumberger

EM 1.2 (0664-0668)

A finite difference method for modeling the DC electrical potential field including surface topography

Jianguo Sun*, Dongliang Zhang, and Zhangqing Sun, Jilin U

EM 1.3 (0669-0673)

Fast 3D modeling of the CSEM response of petroleum reservoirs

Shaaban Bakr* and Trond Mannseth, U of Bergen

EM 1.4 (0674-0678)

3D simulation of the bathymetry effect for marine CSEM using adaptive finite elements

Christoph Schwarzbach*, Ralph-Uwe Börner, and Klaus Spitzer, TU Bergakademie Freiberg

CH P2.6 (0644-0649)

Probabilistic measurement of the exploration and exploitation opportunity size

Luis Garibaldi, Amit Kumar, and Alejandro Chacon, Halliburton; Gert Landerweerd, Global Geosciences

CH P2.7 (0650-0653)

The applicability of gravity gradiometry as an exploration tool in the Central Utah Thrust Belt

B. Kilner* and D. Bate, ARKeX; M. Pinnell and G. Wood, Chief Oil and Gas

CH P2.8 (0654-0658)

First magnetic/gamma-spectrometry survey for hydrocarbon exploration in Brazil identifies microseepage anomalies

Patricia Pastana de Lugaõ*, Strataimage; Emanuele Francesco La Terra, Observatório Nacional

EM 1.5 (0679-0683)

Multiple domain integral equation method for 3D electromagnetic modeling in complex geoelectrical structures

Masashi Endo, Martin Cuma, and Michael Zhdanov, U of Utah

EM 1.6 (0684-0688)

Electromagnetic migration of marine CSEM data in areas with rough bathymetry

Michael Zhdanov and Martin Cuma*, U of Utah

EM 1.7 (0689-0693)

Controlled source interferometry with noisy data

J. Hunziker*, J. van der Neut, E. Slob, and K. Wapenaar, Delft U

EM 1.8 (0694-0698)

Incorporating seismic horizons in inversion of CSEM data

Kristian Rymann Hansen* and Rune Mittet, Electromagnetic Geoservices

Inversion

EM 2.1 (0699-0703)

Vertical and horizontal resolution considerations for a joint 3D CSEM and MT inversion

Antony Price*, Total; Don Watts, WesternGeco

EM 2.2 (0704-0708)

Regularized Gauss-Newton method using compressed Jacobian matrix for controlled source electromagnetic data inversion

Maokun Li, Aria Abubakar, and Tarek Habashy, Schlumberger-Doll

EM 2.3 (0709-0713)

A joint inversion approach for magnetotellurics using gravity and seismic data

Pascal Tarits*, Yassine Abdelfettah, and Sophie Hautot, U of Western Brittany

EM 2.4 (0714-0718)

Joint inversion of marine seismic AVA and CSEM data using statistical rock physics models and Markov random fields

Jinsong Chen*, Lawrence Berkeley Nat'l Lab; Michael Hoversten, Chevron

EM 2.5 (0719-0723)

Simultaneous joint inversion of MT and CSEM data using a multiplicative cost function

A. Abubakar, M. Li, J. Liu, and T. M. Habashy, Schlumberger-Doll

EM 2.6 (0724-0728)

CSEM data uncertainty analysis for 3D inversion

Jan Petter Morten*, Astrid Kornberg Bjørke, and Trude Støren, EMGS

EM 2.7 (0729-0733)

Rigorous 3D inversion of marine magnetotelluric data in the area with complex bathymetry

M. S. Zhdanov, Le Wan*, A. Gribenko, and M. Cuma, U of Utah; K. Key and S. Constable, Scripps

EM 2.8 (0734-0738)

Practical challenges of stochastic inversion implementation for geophysical problems

Whitney Trainor*, Stanford U; Michael Hoversten, Chevron

TEM and Other Applications

EM 3.1 (0739-0743)

Some issues on 1D-TEM inversion utilizing various multiple data strategies

Ruizhong Jia*, L. J. Davis, and R. W. Groom, Petros Eikon

EM 3.2 (0744-0748)

Apparent anisotropy derived from transient electromagnetic earth responses

Bruce Hobbs*, Dieter Werthmüller, and Folke Engelmark, PGS

EM 3.3 (0749-0753)

Vertical source and receiver CSEM method in time-domain

T. Holten*, E. G. Flekkøy, K. J. Måløy, and B. Singer, Petromarker

EM 3.4 (0754-0758)

Multitransient EM repeatability experiment over North Sea Harding Field

A. Ziolkowski, PGS; R. Parr: BP; D. Wright*, V. Nockles, and C. Limond, PGS

EM 3.5 (0759-0763)

Focused source EM survey versus time- and frequency-domain CSEM

Sofia Davydycheva*, R&D3DEM; Nikolai Rykhlini, Inst of Innovative Methods of Geophysics

EM 3.6 (0764-0768)

A comparison of airborne and ground electromagnetic data near the Grand Canyon

L. J. Davis* and R. W. Groom, Petros Eikon

EM 3.7 (0769-0773)

Hydrocarbon seepage mapping with airborne electromagnetics in Mozambique

Andreas Pfaffhuber, NGI; Ståle Monstad, DNO; Jonathan Rudd*, Aeroquest

EM 3.8 (0774-0778)

Induced polarization in hydrocarbon-saturated sands and sandstones: Experimental study and general effective medium modeling

Michael Zhdanov and Vladimir Burtman, U of Utah

Marine CSEM Data Processing

EM 4.1 (0779-0784)

3D controlled source electromagnetic interferometry by multidimensional deconvolution

Yuanzhong Fan and Roel Snieder, Colorado School of Mines; Johannes Singer, Shell

EM 4.2 (0785-0789)

Three methods for mitigating airwaves in shallow water marine CSEM data

Jiuping Chen* and David Alumbaugh, Schlumberger

EM 4.3 (0790-0793)

Optimization and miniaturization of magnetic sensors for marine EM

Stefan Helwig*, Kurt Strack, KMS; Valery Korepanov, Lab for ElectroMagnetic Innovations

EM 4.4 (0794-0798)

Near source response of a resistive layer to vertical electric dipole excitation

Nestor Cuevas* and David Alumbaugh, Schlumberger

Marine EM Data Interpretation and Applications

EM 5.1 (0820-0824)

Marine CSEM time-lapse repeatability for hydrocarbon field monitoring

J. J. Zach, M. A. Frenkel, D. Ridyard, J. Hincapie, B. Dubois, and J. P. Morten, EMGS

EM 5.2 (0825-0829)

Exploration case studies in mature Gulf of Mexico basins using 3D marine CSEM

H. Yuan*, T. Pham, J. J. Zach, M. A. Frenkel, and D. Ridyard, EMGS

EM 5.3 (0830-0834)

Application of 3D anisotropic CSEM inversion offshore west of Greenland

A. Lovatini* and M. D. Watts, WesternGeco; K. E. Umbach, and A. Ferster, EnCana; S. Patmore, Cairn Energy; J. Stilling, Nunoil

EM 5.4 (0835-0839)

The role of EM rock physics and seismic data in integrated 3D CSEM data analysis

I. Brevik*, StatoilHydro; Pål Gabrielsen, Vestfonna; Jan Petter Morten, EMGS

EM 4.5 (0799-0803)

Resistivity upscaling via renormalization

Harald Soleng, OHM Rock Solid Images

EM 4.6 (0804-0809)

Uncertainty analysis for the integration of seismic and CSEM data

Myoung Jae Kwon and Roel Snieder, Colorado School of Mines

EM 4.7 (0810-0814)

Enhanced subsurface response for marine CSEM surveying

Frank A. Maaø* and Anh Kiet Nguyen, EMGS

EM 4.8 (0815-0819)

Foundations of the method of EM field separation into upgoing and downgoing parts and its application to MCSEM data

Michael Zhdanov and Shuming Wang*, U of Utah

EM 5.5 (0840-0844)

Interpreting SBL data in complex resistivity regime: Integration of advanced EM techniques with existing geophysical exploration data

L. Lorenz* and H. Pedersen, EMGS; M. Akella, A. Tyagi, P. Sangvai, and R. Bastia, Reliance Industries

EM 5.6 (0845-0849)

Advances in marine controlled source electromagnetic: The Santos Basin Project, Brazil

A. Zerilli* and T. Labruzzo, WesternGeco; M. P. Buonora, P. T. L. Menezes, and L. F. Rodrigues, Petrobras

EM 5.7 (0850-0854)

Monitoring of hydrocarbon reservoirs using marine CSEM method

Noel Black* and Michael Zhdanov, U of Utah

EM 5.8 (0855-0858)

Electromagnetic imaging of Santos Basin constrained by well log induction data

Vinicius Pinto* and Sergio Fontes, Observatorio Nacional-Brazil; Emin Ulugergerli, Canakkale Onsekiz Mart U

General

EM P1.1 (0859-0863)

TEM S-inversion in tunnel prediction

Guo Wenbo, XiAn Jiaotong U; Xue Guoqiang*, Chinese Academy of Sciences; Li Xiu, Chang An U

EM P1.2 (0864-0868)

3D modeling of mCSEM data employing various electromagnetic scattering approximations

Leiv-J. Gelius, U of Oslo

EM P1.3 (0869-0873)

Principle of relative phase spectrum measurement in SIP

R. Chen*, Z. He, L. He, and X. Liu, BGP

EM P1.4 (0874-0877)

The comparative trial between magnetic induced polarization and electric induced polarization

P. Lin, J. Li, P. Guo, and Y. Li, Inst. of Geophysical and Geochemical Exploration

EM P1.5 (0878-0882)

CEMP data interpretation based on rock electrical property analysis – A case history in the Ordos Basin

Zheng Li*, Nie Guiping, and Liu Zebing, BGP CNPC

EM P1.6 (0883-0887)

An approach for multisource 3D marine CSEM modeling in the frequency-domain

N. Vieira da Silva and J. Morgan, Imperial College London; L. MacGregor, OHM; M. Warner, Imperial College London

EM P1.7 (0888-0892)

A modeling comparison of two crosswell EM systems for water flood monitoring in horizontal wells

Alexandra Kaputerko*, U of Utah; David Alumbaugh and Cyrille Levesque, Schlumberger

EM P1.8 (0893-0897)

Near surface velocity investigation with STEM and its application on the static correction for seismic data

Liangjun Yan, Zhuliu Su, and Xingbing Xie, Yangtze U

Source Depth Estimation/Signal Processing

GM 1.1 (0898-0902)

3D depth-to-basement and density contrast estimates using gravity and borehole data

C. M. Martins and V. C. F. Barbosa*, ON; J. B. C. Silva, UFPA

GM 1.2 (0903-0907)

Automation of the SLUTH method for deriving depth and location of magnetic sources

Joshua Ulla*, Carleton U; Richard Smith, Fugro; Claire Samson, Carleton U

GM 1.3 (0908-0912)

Enhancement of depth estimation techniques with amplitude analysis

Kristofer Davis* and Yaoguo Li, Colorado School of Mines

GM 1.4 (0913-0917)

Euler deconvolution of gravity anomalies from thick contact/fault structures with negative structural index

Petar Stavrev, U of Mining and Geology; Alan Reid*, U of Leeds/Reid Geophysics

GM 1.5 (0918-0922)

The differential scaling function: A local estimator of source parameters of potential fields

Maurizio Fedi and Giovanni Florio, U of Naples

GM 1.6 (0923-0927)

Completing the image with borehole gravity gradients

Markus Krieger*, Peter Smilde, and Oliver Geisler, Terrasys Geophysics

GM 1.7 (0928-0932)

Spatial domain transformations: Something old, something new

Xiong Li, Fugro

GM 1.8 (0933-0937)

Magnetic 3D fast forward modeling with varying terrain

Wenli Wu, Guanwen Gu, and Meng Liang, Inst of Geophysical and Geochemical Exploration

Integrated Interpretation/Gravity Gradiometry

GM 2.2 (0938-0941)

Airborne gravity gradiometer, magnetic, and seismic data integrated interpretation for basement configuration and prospect evaluation over Chirete area, Argentina

M. L. Fernandez, and J. C. S. O. Lyrio, Petrobras; S. V. Yalamanchili, L. Braga, and A. Morgan*, Fugro

GM 2.3 (0942-0946)

Comparison study between airborne and ship-borne full tensor gravity gradiometry data

J. Mims*, D. Selman, J. Dickinson, C. Murphy, and J. Mataragio, Bell Geospace; G. Jorgensen, Flat Irons Geophysics

GM 2.4 (0947-0951)

Aborted halokineses and development of Mutriba structure, Kuwait

S. Parmjit*, H. Al-Qallaf, H. Riyasat, and A. S. Abdul Aziz, Kuwait Oil

GM 2.5 (0952-0956)

Structural fabric of Krishna-Godavari basin on the eastern continental margin of India inferred from the analysis of land and satellite gravity data

B. Singh* and D. T. Diljith, Nat'l Geophysical Research Inst

GM 2.6 (0957-0961)

Magnetic imaging of intrasedimentary anomalies and their association with hydrocarbon producing fields in the Niger Delta, Nigeria

S. B. Ojo*, S. Oladele, and B. D. Ako, Obafemi Awolowo U

GM 2.7 (0962-0966)

Spatial-domain filters for short wavelength sedimentary magnetic anomalies

Afif Saad, Saad GeoConsulting

GM 2.8 (0967-0970)

Structural study of the Qamar Gulf, eastern Yemen from marine gravity investigations

K. K. Sharma*, U of Madras; A. H. L. Naji, and M. R. Janardhana, Yuvaraja's College

GM 2.9 (0971-0975)

Mapping the density structures of northern China from gravity anomalies data and its geodynamic implications

X. Tang*, Yangtze U; Y. Chen, Peking U; W. Hu, and L. Liangjun, Yangtze U

Data Processing, Operations, Interpretation

GM P1.1 (0976-0980)

Estimation of the time-lapse gravity errors due to water table and soil moisture variations

M. Glegola* and P. Ditmar, U Delft; M. F. P. Bierkens, TNO/Deltares/Utrecht U; R. Arts, TNO/U Delft; F. Vossepoel, Shell Int'l E&P

GM P1.2 (0981-0985)

Suppressing the influences of vessel magnetism on precision of marine magnetic data

J. Gao*, T. Zhang, X. Luo, Z. Wu, and L. Zhao, SOA

GM P1.3 (0986-0990)

A first look at aerogravity from GRAV-D and the outlook for an improved vertical datum

D. R. Roman*, V. A. Childers, T. Diehl, and J. Saleh, NOAA National Geodetic Survey

GM P1.4 (0991-0994)

Determination of structure parameters on gravity method using radial basis functions networks: Case study, Seferihisar geothermal area, western Turkey

Ilknur Kaftan* and Mujgan Salk, Dokuz Eylul U

GM P1.5 (0995-0999)

Geophysical evidence of basement controlled faulting in the Ellenburger Group and Viola Limestone, Fort Worth Basin, Texas

Elizabeth Baruch, Olunbunmi Elebiju, and Roderick Perez*, U of Oklahoma

GM P1.6 (1000-1003)

Gravity and magnetic surveys in transition zones with a hovercraft

Vladimir Lygin*, FSUGE Yuzhmoregeologia; Dmitry Koryakin, Fugro

Interpretation Studies

INT 1.1 (1004-1008)

Delineating sand channels using 3D-3C seismic data: Manitou Lake heavy oil field, Saskatchewan

Roxana Varga*, U of Calgary; Robert Stewart, U of Houston

INT 1.2 (1009-1013)

Sub-seismic scale fault lineaments and their role to hydrocarbon entrapment – A Kuwait Jurassic case study

Nikhil Banik*, Sunil Singh, and Meshal Al-Wadi, Kuwait Oil

INT 1.3 (1014-1019)

Seismic resolution: Thinner than first believed

Thomas Pierle, Schlumberger

INT 1.4 (1020-1024)

Identification and quantitative characterization of igneous rocks: Method and application in the north Huimin Sag

J. Zhang*, CUPB/MIT; Z. Sun, CUPB; Y. Sun, H. Zhang, and N. Toksoz, MIT

Seismic Attributes I

INT 2.1 (1044-1047)

Estimating incoherent noise in poststack seismic data

Saleh al-Dossary* and Yuchun Eugene Wang, Saudi Aramco

INT 2.2 (1048-1052)

The origin and significance of spikes in complex seismic trace attributes

Arthur Barnes, Landmark

INT 2.3 (1053-1057)

Complex-valued correlation and seismic attributes

Thomas Browaeys, U of Texas-Austin

INT 2.4 (1058-1062)

Voxel density: Enhancing attributes using a local estimate of confidence

William Hammon, Terraspark Geosciences

INT 1.5 (1025-1029)

Application of seismic methods for interface detection in the Akal block Jurassic section, Cantarell Field, Mexico

A. Rusic*, J. Tamashiro, M. Brito, G. Gil, and R. Zhang G&W Systems; C. Konerding, CGG Veritas; P. Konerding, Shell; J. Garcia Hernandez, E. Aguirre, and A. Bustos, Pemex

INT 1.6 (1030-1033)

GrAZ 3D for volume based fluid contact detection and anomaly assessment

Michael Padgett, Quantum Earth

INT 1.7 (1034-1038)

Salt interpretation validated by salt tectonic study in the offshore Gulf of Mexico

Li Li*, Itze Chang, and Quincy Zhang, TGS-NOPEC

INT 1.8 (1039-1043)

Time and depth imaging offshore India

R. Fainstein*, S. Traylen, P. Vasilyev, and A. Stempel, WesternGeco

INT 2.5 (1063-1067)

Coherence and volumetric curvatures and their spatial relationship to faults and folds – An example from Chicontepec Basin, Mexico

Ha Mai* and Kurt Marfurt, U of Oklahoma; Sergio Chávez-Pérez, Instituto Mexicano del Petróleo

INT 2.6 (1068-1072)

Map complex fracture systems as termite mounds – A fast marching approach

Hao Guo*, Hess; Kurt Marfurt, U of Oklahoma; Jiang Shu, U of Colorado

INT 2.7 (1073-1077)

Understanding structural complexity using attributes derived from simple equations: Columbus Basin, Teak Field

Marcos Victoria*, Aaron Rampersad, and Jose Grimaldi, Repsol

INT 2.8 (1078-1081)

Using multivariate seismic attributions analysis technique to interpret minor faults in coal seismic survey

J. Cui*, Zhensheng Zhang, Zhongping Zhang, and J. Zhao, BGP CNPC

Seismic Attributes II

INT 3.1 (1082-1086)

Detecting stratigraphic features via cross-plotting of seismic discontinuity attributes and their volume visualization

Satinder Chopra*, Arcis; Kurt Marfurt, U of Oklahoma

INT 3.2 (1087-1091)

Stratigraphic discontinuities mapped through joint time-frequency seismic phase unwrapping

M. Castro de Matos*, K. Zhang, K. J. Marfurt, and R. Slatt, U of Oklahoma

INT 3.3 (1092-1096)

Frequency enhancement via an integer multiplier or just another GeoWizardry attribute?

Tracy Stark, Stark Reality

INT 3.4 (1097-1101)

Frequency-dependent seismic stratigraphy

Hongliu Zeng, U of Texas-Austin

INT 3.5 (1102-1106)

The gradient of the amplitude spectrum of seismic data and its application in reservoir prediction

X. Wei*, Y. Zhang, L. Cao, Y. Wang, and Y. Zhang, BGP CNPC

INT 3.6 (1107-1111)

Integrated seismic texture segmentation and clustering analysis to improved delineation of reservoir geometry

Sipuikinene Miguel Angelo*, Marcilio Matos, and Kurt Marfurt, U of Oklahoma

INT 3.7 (1112-1116)

Curvatures lineament and multiattribute display of full-stack PP, SS, and acoustic impedance seismic data — Diamond-M Field, west Texas

H. T. Mai*, C. F. Russian, K. J. Marfurt, and R. A. Young, U of Oklahoma; A. Weir-Small, Parallel Petroleum

Interpretation Technology

INT 4.1 (1117-1121)

JIP geospatial integrity of geoscience software

B. Schostak, Shell*; J. Stigant, Devon; B. Barrs, ExxonMobil; J. Davis, BP

INT 4.2 (1122-1126)

GIM — A method for computer assisted seismic interpretation

Stein Midtvåge* and Anders Finstad, Geocap

INT 4.3 (1127-1131)

Image-guided blended neighbor interpolation of scattered data

Dave Hale, Colorado School of Mines

INT 4.4 (1132-1136)

New 3D flattened space for seismic interpretation

E. Labrunye*, C. Winkler, C. Borgese, J.-L. Mallet, and S. Jayr, Paradigm

INT 4.5 (1137-1141)

Tangible user interfaces for geosciences

Guillaume Rivière* and Nadine Couture, LaBRI ESTIA; Fabrice Jurado, IFP

INT 4.6 (1142-1146)

Interpretation of 2D surveys in volumetric environment

B. Silva*, R. Ribeiro, B. Carvalho, and M. Xavier, Halliburton

INT 4.7 (1147-1151)

Interactive visualization and interpretation of geologic surfaces in 3D seismic data

Benjamin Kadlec* and Geoffrey Dorn, TerraSpark; Henry Tufo, U of Colorado

Acquisition and Processing

MAZ 1.1 (1152-1156)

Issues in multidimensional interpolation

Ray Abma, BP

MAZ 1.2 (1157-1161)

Offset and aperture requirements for azimuth parameter estimation using azimuth migration scanning

Charles Sicking* and Stuart Nelan, Weinman GeoScience

MAZ 1.3 (1162-1166)

Marine full-azimuth field trial at Heidrun

M. Houbiers*, P. Garten, M. Thompson, K. R. Straith, and A. Smalø Moen, StatoilHydro

MAZ 1.4 (1167-1171)

Data regularization strategies for azimuth-limited prestack migration of 3D land volumes in fracture detection applications

Mike Perz*, Juefu Wang, and Ye Zheng, Divestco

MAZ 1.5 (1172-1176)

Azimuthal amplitude analysis on data processed in common offset vector domain

J.-L. Boelle* and B. Paternoster, Total; D. Lecerf and S. Navion, CGGVeritas; A. Belmokhta and A. Ladmek, Sonatrach

MAZ 1.6 (1177-1181)

Simultaneous sources: A controlled experiment on different source configurations

Peter Aaron*, Roald van Borselen, and Eivind Fromyr, PGS

MAZ 1.7 (1182-1186)

Multiplies attenuation using WAZ data in VTI anisotropic media

F. Hoxha*, D. Kessler, M. Frismanis, and J. Codd, SeismicCity

MAZ 1.8 (1187-1191)

Wide azimuth anisotropic imaging at Tubular Bells Field in the Gulf of Mexico

G. Xia*, F. Rollins, S. LaDart, J. Etgen, L. Sirgue, B. Nolte, and J. Kaldy, BP

Multicomponent Seismic-Analysis and Interpretation

MC 1.1 (1192-1196)

A novel approach to estimating near-surface S-wave velocity and converted-wave receiver statics

R. Bansal, W. Ross, S. Lee, M. Matheney, A. Martinez, T. Jenkinson, and A. Shatilo, ExxonMobil

MC 1.2 (1197-1201)

Elastic wave mode separation for TTI media

Jia Yan* and Paul Sava, Colorado School of Mines

MC 1.3 (1202-1206)

AVA attributes in joint PP/PS analysis

Vijay Khare*, Michael Matheney, and Alex Martinez, ExxonMobil

MC 1.4 (1207-1211)

Elastic time-reverse modeling imaging conditions

Brad Artman*, Igor Podladtchikov, and Alex Goertz, Spectraseis

MC 1.5 (1212-1216)

Estimating and compensating for anisotropy observed in PS data for a heavy oil reservoir

R. Whale, Shell; R. Bale*, K. Poplavskii, K. Douglas, X. Li, and C. Slind, CGGVeritas

MC 1.6 (1217-1221)

Delineating oil sand reservoirs by high resolution PP/PS processing and joint inversion in the Junggar Basin, northwest China

Y. Dang and B. Lou, PetroChina; X. Miao*, P. Wang, L. Shen, and S. Zhang, CGGVeritas

MC 1.7 (1222-1226)

Application of 3D-3C seismic exploration in Saihantala lithologic reservoirs

X. Zou*, Z. Deng, S. Cui, Y. He, X. Bai, X. Guo, J. Wang, C. Tang, H. Li, BGP

MC 1.8 (1227-1231)

Multicomponent seismic time-lapse crossplot and its applications

A. Shahin*, P. L. Stoffa, R. H. Tatham, D. Sava, U of Texas-Austin

Multicomponent Seismic Analysis and Anisotropy

Volume 3

MC P1.1 (1232-1236)

Imaging challenges in a producing Mideast carbonate platform environment

J. M. Reilly* and A. P. Shatilo, ExxonMobil; H. B. Al-Rougha, Zakum Development; T. Owen and G. Wool, Schlumberger WesternGeco

MC P1.2 (1237-1241)

Lithology and fluid prediction using multiwave seismic data

J. Wang*, L. Huo, C. Tian, Q. Ding, L. Shao, and Y. Liu, BGP

MC P1.3 (1242-1246)

Anisotropic effects on density information extraction from PS waves (S-zero stack)

Keshan Zou, WesternGeco/Schlumberger

MC P1.4 (1247-1251)

Joint PP-PS traveltimes and amplitude inversions for reservoir characterization at Rulison Field, Colorado

Alexandre Araman* and Thomas Davis, Colorado School of Mines

MC P1.5 (1252-1256)

Understanding Morrow A sands through elastic modeling

Paritosh Singh and Thomas Davis, Colorado School of Mines; Mike O'Brien, Allied Geophysics

MC P1.6 (1257-1261)

Analysis of azimuthally dependent transmission coefficients of converted PS-waves for duplex migration on transmitted waves

A. Kostyukovich*, Tesseral Technologies; N. Marmalevskiy, Y. Roganov, and V. Roganov, Ukrainian State Geological Prospecting Inst.

MC P1.7 (1262-1266)

Response of a triaxial induction logging tool in a homogeneous biaxial anisotropic formation

Ning Yuan, Xiao Chun Nie, and Richard Liu, U of Houston

MC P1.8 (1267-1271)

The effect of dip on 1D simulation of triaxial induction tool in anisotropic layered formation

Zhijuan Zhang* and Richard Liu, U of Houston

Case Histories and Technology

MIN P1.1 (1272-1276)

ZTEM airborne tipper AFMAG test survey over a magmatic copper-nickel target at Axis Lake in northern Saskatchewan

J. Legault*, H. Kumar, and B. Milicevic, Geotech; L. Hulbert, Pure Nickel

MIN P1.2 (1277-1281)

ZTEM tipper AFMAG and 2D inversion results over an unconformity uranium target in northern Saskatchewan

J. M. Legault*, H. Kumar, and B. Milicevic, Geotech; P. Wannamaker, consultant

MIN P1.3 (1282-1288)

A comparison of three survey methods in the search for kimberlites

Jeffrey Gamey and Jeannemarie Norton*, Battelle; Grant Lockhart, Indicator Minerals

MIN P1.4 (1289-1293)

Characterization of a geothermal system in the Upper Arkansas Valley, Colorado

T. Blum*, K. van Wijk, and L. Liberty, Boise State U; M. Batzle, R. Krahenbuhl, and A. Revil, Colorado School of Mines; R. Reynolds, Denver Museum of Nature and Science

MIN P1.5 (1294-1299)

Heat source mapping and evaluation of geothermal resource potential in Lake Bogoria Basin, Kenya

J. Mulwa*, U of Nairobi; D. Fairhead, U of Leeds; J. Barongo, U of Nairobi; N. Mariita, Kenya Electricity

MIN P1.6 (1300-1304)

The comprehensive geophysical survey for the geothermal prospecting in Inner Mongolia

M. Xu, J. Liu, H. Fang, M. Chai, C. Liu, and G. Wang, CAGS

MIN P1.7 (1305-1309)

The geothermal study of Ungaran, Indonesia

Yudiyoko Ega Sugiharto, U Diponegoro

MIN P1.8 (1310-1314)

The peculiarities of geophysical methods in exploration for chrome deposits

Alfred Irfan Frasher

Seismics

NSE 1.1 (1315-1319)

Automating the acquisition of 3D near-surface seismic reflection data

S. D. Sloan*, US Army ERDC; D. W. Steeples and G. P. Tsoflias, U of Kansas; M. H. McKenna, US Army ERDC

NSE 1.2 (1320-1324)

The separation of P-wave and S-wave from crosswell seismic data and application

J. Liu and X. Zeng, China U of Geosciences; J. Xia, U of Kansas; S. Charles, China U of Geosciences

NSE 1.3 (1325-1329)

VSP survey in a shallow well using a small vibrator source

J. Wong*, S. K. Miong, R. R. Stewart, E. V. Gallant, and K. W. Hall, U of Calgary

NSE 1.4 (1330-1334)

Near-surface utility of vibroseis

R. D. Miller*, J. Xia, D. Rice, S. L. Walters, and T. R. Rademacker, Kansas Geological Survey

Hydrogeophysics & Environmental Applications

NSE 2.1 (1355-1359)

Seepage diagnosis of earthen embankments with controlled source audio frequency domain magnetics

M. J. Wallace*, J. R. Montgomery, V. O. Kofoed, and M. L. Jessop, Willowstick Technologies

NSE 2.2 (1360-1364)

High-resolution helicopter survey for infrastructure and contamination sources

L. P. Beard*, T. J. Gamey, W. E. Doll, J. R. Sheehan, and J. Norton, Battelle; M. Siwiak, ENSR

NSE 2.3 (1365-1369)

Controlled changes in grain size and pore characteristics and their impact on the hydraulic conductivity and spectral induced polarization response of proxies of alluvial sediments

K. Koch, J. Irving, and K. Holliger*, U of Lausanne; A. Kemna, U of Bonn

NSE 2.4 (1370-1374)

Evaluation of the viability and robustness of an iterative deconvolution approach for estimating the source wavelet during waveform inversion of crosshole ground-penetrating radar data

F. Belina, J. Irving, and K. Holliger*, U of Lausanne; J. Ernst, UBS

NSE 1.5 (1335-1339)

2D deformable-layer tomostatics with the joint use of first breaks and shallow reflections

P. Li*, Z. Yan, M. Guo, BGP; H. Zhou, Texas Tech U

NSE 1.6 (1340-1344)

Positioning-error correction for densely sampled high-resolution seismic data recorded with water-bottom cable

Nihed El Allouche*, Guy Drijkoningen, and Joost van der Neut, Delft U

NSE 1.7 (1345-1349)

The virtual refraction: A case study at the Boise Hydrogeophysical Research Site

Joshua Nichols*, Dylan Mikesell, and Kasper van Wijk, Boise State U

NSE 1.8 (1350-1354)

Refraction interferometry for numerical surface seismic experiments

D. Mikesell and K. van Wijk, Boise State U; A. Calvert, ION-GX; M. Haney, USGS Alaska Volcano Observatory

NSE 2.5 (1375-1379)

Parameter estimation for unsaturated soil hydraulic properties using full-waveform hydrogeophysical inversion of time-lapse GPR data

K. Z. Jadoon*, S. Lambot, H. Verreken, Agrosphere; E. Slob, Delft U

NSE 2.6 (1380-1384)

Constraints on the permeability structure of alluvial aquifers from P-wave sonic logs

Ludovic Baron and Klaus Holliger*, U of Lausanne

NSE 2.7 (1385-1389)

Inversion of Rayleigh waves recorded on pyroclastic deposits at Augustine volcano

Matthew Haney, Cyrus Read, and Tom Parker, USGS Alaska Volcano Observatory

NSE 2.8 (1390-1395)

Estimation of near-surface shear-wave velocity by inversion of Love waves

J. Xia*, Kansas Geological Survey; R. Cakir, Washington State Dept. of Natural Resources; R. Miller and C. Zeng, Kansas Geological Survey; Y. Luo, China U of Geosciences

Seismics

NSE P1.1 (1396-1400)

Influence of time-variant near-surface structure and piece-jointed static correction technique

Z. Deng, X. Bai*, C. Tang, H. Li, and Y. Sun, BGP

NSE P1.2 (1401-1405)

A new statics method for exceedingly thick near-surface structure

Y. Lan*, X. Wang, D. Wei, M. Sun, and Z. Jin, BGP CNPC

NSE P1.3 (1406-1410)

Joint application of tomography and multidomain static corrections

Z. Yan*, Z. Feng, X. Yang, Y. Zu, X. Hou, and Q. Ma, BGP CNPC

NSE P1.4 (1411-1415)

Study of near-surface layer effects in reflection seismic exploration from the dynamics point of view

C. Lu*, Y. Ling, J. Gao, D. Sun, and J. Lin, BGP CNPC

Inversion and Engineering Applications

NSE P2.1 (1435-1439)

DC resistivity sensitivity for tilted transversely isotropic media

T. Wiese*, S. Greenhalgh, B. Zhou, and M. Greenhalgh, U of Adelaide; L. Marescot, ETH Zurich

NSE P2.2 (1440-1444)

Numerical evaluation of 3D geoelectrical resistivity imaging for environmental and engineering investigations using orthogonal 2D profiles

A. P. Aizebeokhai*, Covenant U; A. I. Olayinka, U of Ibadan; V. S. Singh, Nat'l Geophysical Research Inst

NSE P2.3 (1445-1448)

EM phase velocity dispersion in a surficial concrete slab

Luis Peche and Jandyr Travassos*, Observatório Nacional-Brasil

NSE P2.4 (1449-1453)

Archaeological investigation of the Court Kiva in Chaco Canyon using geophysical methods

C. Martinez*, A. Dean, and E. Goggin, Colorado School of Mines; B. K. Todd, U of Colorado; R. A. Krahenbuhl, Colorado School of Mines

NSE P1.5 (1416-1420)

A method of estimating near-surface velocity models with rugged topography using refraction traveltimes

X. Ren*, X. Zhou, H. Li, G. Ma, and J. Zhang, BGP

NSE P1.6 (1421-1424)

Diffraction imaging versus reflection processing for shallow void detection

Shelby Peterie* and Richard Miller, Kansas Geological Survey; Don Steeples, U of Kansas

NSE P1.7 (1425-1429)

Modeling results on detectability of shallow tunnels using Rayleigh-wave diffraction

C. Zeng*, J. Xia, and R. D. Miller, Kansas Geological Survey; G. P. Tsoflias, U of Kansas

NSE P1.8 (1430-1434)

Automated geophone deployment on pavement for high resolution seismic reflection investigations in support of transportation infrastructure projects

Brian Miller*, George Tsoflias, and Don Steeples, U of Kansas

NSE P2.5 (1454-1458)

Near-surface evaluation of Ball Mountain Dam, Vermont, using multichannel analysis of surface waves and refraction tomography seismic methods on land-streamer data

J. Ivanov*, Kansas Geological Survey; C. D. Johnson and J. W. Lane, USGS; R. D. Miller, Kansas Geological Survey; D. Clemens, US Army Corps of Engineers

NSE P2.6 (1459-1463)

Inversion of multichannel data with rotated kernels

Andy Kass*, Trevor Irons, and Yaoguo Li, Colorado School of Mines

NSE P2.7 (1464-1468)

Enhancement of magnetic data by stable downward continuation for UXO applications

Yaoguo Li and Sarah Devriese*, Center for Gravity Electrical, and Magnetic Studies, Department of Geophysics, Colorado School of Mines

NSE P2.8 (1469-1473)

Discrimination between scrap metal and buried UXO using spatial derivatives of TEM response

Michael Asten*, Flagstaff; Sam Fogarty and Andrew Duncan, Electromagnetic Imaging Technology

Environmental and Engineering Applications

NSE P3.1 (1474-1478)

The AMD and the geomagnetic anomalies on metalliferous waste dumps

Cezar Iacob, U of Bucharest

NSE P3.2 (1479-1483)

Delineation by seismic attributes of fracture patterns in a 3D GPR data volume

Oswaldo Davogustto* and Roger Young, U of Oklahoma; Ibrahim Cemen, Oklahoma State U

NSE P3.3 (1484-1488)

Multisensor utility mapping in all soils

G. Young*, Underground Imaging; D. Hanson and K. Sjoström, Vermeer Underground; R. Jones, Sagentia; J. Clark, Corona Resources

NSE P3.4 (1489-1493)

Controlled source audio frequency domain magnetics for seepage diagnosis of Laurel Bed Dam in southwest Virginia, USA

M. J. Wallace*, J. R. Montgomery, V. O. Kofoed, and M. L. Jessop, Willowstick Technologies

Location of Microseismic Events

PSC 1.1 (1514-1518)

Automated detection and location of hydrofracking-induced microseismic event from 3C observations in an offsetting monitor well

Sergey Abaseyev*, U of Houston; Mike Ammerman, Devon Energy; Evgeny Chesnokov, U of Houston

PSC 1.2 (1519-1523)

Accuracy of microseismic event locations recorded with single and distributed downhole sensor arrays

U. Zimmer*, H. Bland, D. Jing, and N. Warpinski, Pinnacle; V. Sen and J. Wolfe, BP

PSC 1.3 (1524-1526)

Correlation of surface microseismic event distribution to water production and faults mapped on 3D seismic data: A West Texas case study

William Keller*, Chesapeake; B. J. Hulsey, and Peter Duncan, Microseismic

PSC 1.4 (1527-1531)

Temporal magnitude distribution of seismicity induced by hydraulic stimulations of hydrocarbon and geothermic reservoirs

Serge Shapiro* and Carsten Dinske, Freie U Berlin

NSE P3.5 (1494-1498)

Study on Subsurface Contamination Flow Path Distribution Using Electrical Resistivity Imaging (ERI) Technique at Waste Disposal Site: Taiping, Malaysia

Nora Dalila Desa, Lakam Mejus, Mohd Tadza Abd Rahman, Kamarudin Samuding, Roslanzairi Mostapa, Jeremy Andy Dominic

NSE P3.6 (1499-1503)

Shallow seismic surveys in areas with waste dumps from Romania

Stan Ioana, U of Bucharest

NSE P3.7 (1504-1508)

The influence of modern sedimentary channel on seismic data and the investigation methods

S. Cui*, Z. Deng, C. Liu, and Y. Zhan, BGP CNPC

NSE P3.8 (1509-1513)

Joint evaluation of gravity and geoelectric methods for groundwater exploration in western ZZ area

L. He*, X. Mi, Y. Wang, and L. Ji, BGP

PSC 1.5 (1532-1536)

Conceptual model of hydrocarbon reservoir related microtremors

Erik Saenger*, ETH Zurich/Spectraseis; Marc-André Lambert and Stefan Schmalholz, ETH Zurich

PSC 1.6 (1537-1541)

An automatic procedure to detect microseismic events embedded in high noise

S. Bose, H.-P. Valero, Q. Liu*, R. G. Shenoy, and A. Ounadjela, Schlumberger-Doll

PSC 1.7 (1542-1546)

Using continuous microseismic records for hydrofracture diagnostics and mechanics

W. Pettitt*, J. Reyes-Montes, B. Hemmings, and E. Hughes, Applied Seismology Consultants; R. P. Young, U of Toronto

PSC 1.8 (1547-1551)

Comparison of picking-based and waveform-based location methods of microseismic events: Application to a fracturing job

T. Bardainne and E. Gaucher*, Magnitude; F. Cerda and D. Drapeau, Total

Location of Microseismic Events and Permeability

PSC 2.1 (1552-1556)

Fault activation during hydraulic fracturing

S. C. Maxwell*, M. Jones, R. Parker, S. Miong, and S. Leaney, Schlumberger; D. Dorval, D. D'Amico, J. Logel, E. Anderson, and K. Hammermaster, Talisman

PSC 2.2 (1557-1561)

Sensitivity measurements for locating microseismic events using first arrival clock-times

John Bancroft,* and Joe Wong, U of Calgary

PSC 2.3 (1562-1565)

Surface microseismic monitoring of slick-water and nitrogen fracture stimulations, Arkoma Basin, Oklahoma

Morris Hall*, Williams; Jo Ellen Kilpatrick, MicroSeismic

PSC 2.4 (1566-1570)

Microseismic wavefield separation using multichannel chirplet decomposition

Gregoire Le Touze* and Paul Cristini, LMA CNRS; Jacques Blanco, PhySeis Consultant

Borehole and Surface Microseismic Event Observations

PSC 3.1 (1592-1596)

Integrated imaging with active and passive seismic data

A. J. Berkhout* and D. J. Verschuur, Delft U

PSC 3.2 (1597-1601)

Estimation of primaries by sparse inversion from passive seismic data

G. J. A. van Groenestijn* and D. J. Verschuur, Delft U

PSC 3.3 (1602-1606)

Application of relative location technique from surface arrays to microseismicity induced by shale fracturing

B. J. Hulsey*, L. Eisner, and M. P. Thornton, MicroSeismic; D. Jurick, Devon

PSC 3.4 (1607-1611)

Bayesian DHI using passive seismic low frequency data

N. Riahi*, M. Kelly, M. Ruiz, and W. Yang, Spectraseis

PSC 2.5 (1571-1575)

Using microseismic data to estimate the in-situ permeabilities and predict gas production of hydraulically fractured tight sands

Vladimir Grechka, Shell; Prajnajyoti Mazumdar, Colorado School of Mines; Serge Shapiro, Freie U Berlin

PSC 2.6 (1576-1580)

Influence of nonlinear fluid-rock interaction on estimates of hydraulic diffusivity from microseismic data

N. Hummel* and S. A. Shapiro, Freie U Berlin

PSC 2.7 (1581-1585)

Estimation of shale permeability from microseismicity

Irina Bayuk*, Russian Academy of Sciences; Mike Ammerman, Devon; Evgeny Chesnokov, U of Houston

PSC 2.8 (1586-1591)

Horizontal velocity measurements using microearthquake data

Raymon Brown, Ray Brown Creative Interpretation Processing

PSC 3.5 (1612-1616)

Imaging induced seismicity with the LoFS permanent sensor surface array

Kit Chambers*, U of Bristol; O. Barkved, BP; J.-M. Kendall, U of Bristol

PSC 3.6 (1617-1621)

Extracting subsurface information from ambient seismic noise — An example from Germany

B. Schechinger, A. Goertz*, and B. Artman, Spectraseis; M.-A. Lambert, ETH Zurich; M. Koerbe and P. Krajewski, GDF Suez

PSC 3.7 (1622-1626)

Kinematics of iterative interferometry in a passive seismic experiment

Sjoerd de Ridder*, George Papanicolaou, and Biondo Biondi, Stanford U

PSC 3.8 (1627-1631)

Recording noise — Estimating shear-wave velocities: Feasibility of offshore ambient-noise surface-wave tomography on a reservoir scale

Sascha Bussat* and Simone Kugler, StatoilHydro

Analysis of Seismic Signals and Microseismic Event Locations

PSC P1.1 (1632-1636)

Why anisotropy is important for location of microearthquake events in shale

Irina Bayuk*, Russian Academy of Sciences; Evgeny Chesnokov, U of Houston; Mike Ammerman, Devon

PSC P1.2 (1637-1641)

Probabilistic microearthquake location for reservoir monitoring

Ran Xuan* and Paul Sava, Colorado School of Mines

PSC P1.3 (1642-1646)

Temporal behavior of microseismicity as a characteristic of local pore pressure change

S. B. Turuntaev*, E. V. Zenchenko, and E. I. Eremeeva, Russian Academy of Sciences

PSC P1.4 (1647-1651)

Locating microseismic epicenters in common arrival time domain

Qiang Fu and Yi Luo*, Saudi Aramco

PSC P1.5 (1652-1656)

Microseismic analysis for the quantification of crack interaction during hydraulic stimulation

J. M. Reyes-Montes*, W. Pettiit, J. Haycox, and B. Hemmings, Applied Seismology Consultants; R. P. Young, U of Toronto

PSC P1.6 (1657-1661)

Subsalt imaging using secondary scattered waves

Yaofeng He* and Ru-Shan Wu, U of California

PSC P1.7 (1662-1667)

Analysis of stationary condition for virtual reflection signals

Flavio Poletto*, Biancamaria Farina, and Piero Corubolo, OGS

PSC P1.8 (1668-1672)

Active seismic imaging using microseismic events

Anton Reshetnikov*, Stefan Buske, and Serge Shapiro, Freie U Berlin

Signal Processing and Reservoir Structure

PSC P2.1 (1673-1677)

Application of noise interferometry to obtain time-lapse velocity variations during a steam stimulation cycle at Cold Lake

R. Lu*, A. Venkataraman, M. Payne, ExxonMobil; J. Zhang, Zadc

PSC P2.2 (1678-1682)

Enhance seismic interferometry signal using an adaptive FK filter

Chuntao Liang*, Mike Thornton, and Peter Duncan, Microseismic

PSC P2.3 (1683-1687)

Analyzing low frequency seismic noise employing seismic interferometry and time-reversal modeling – A controlled-data feasibility study

Haishan Zheng* and Leiv-J. Gelius, U of Oslo

PSC P2.4 (1688-1692)

Application of seismic interferometry by multidimensional deconvolution to crosswell seismic reflection using singular-value decomposition

S. Minato*, T. Matsuoka, and T. Tsuji, Kyoto U; D. Draganov, J. Hunziker, and K. Wapenaar, Delft U

PSC P2.5 (1693-1697)

Studying shallow seafloor structure based on correlations of continuous seismic records

M. Landes*, N. M. Shapiro, and S. Singh, Inst. de Physique du Globe de Paris; Rodney Johnston, BP

PSC P2.6 (1698-1702)

Velocity and structural information extracted from shot gathers obtained from ambient noise using seismic interferometry

D. Draganov*, Delft U; X. Campman, Shell; J. Thorbecke, Delft U; A. Verdel, Shell; K. Wapenaar, Delft U

PSC P2.7 (1703-1707)

Improving signal-to-noise ratio of passive seismic data with an adaptive FK filter

C. Liang*, M. P. Thornton, P. Morton, B. J. Hulse, A. Hill, and P. Rawlins, Microseismic

PSC P2.8 (1708-1710)

High resolution interpretation of a Permian reef

Michael Raines, Sandridge Tertiary; Thomas Morgan*, Z-seis

Faults, Fractures, and Stress

RC 1.1 (1711-1715)

Improved tools to streamline the seismic interpretation and fault analysis workflow

S. R. Freeman*, S. D. Harris, K. Wood, V. S. O'Connor, and R. J. Knipe, RDR/Leeds U

RC 1.2 (1716-1720)

Azimuthal P-wave attributes based fracture characterization of Paleozoic buried-hill reservoir

Z. Zhang, M. Zhao*, H. Wang, and S. Yang, LandOcean Energy

RC 1.3 (1721-1725)

Electrokinetic coupling in hydraulic fracture propagation

N. Cuevas*, U of California; J. Rector, Lawrence Berkeley Lab; J. R. Moore and S. D. Glaser, U of California

Solid Images

RC 2.1 (1741-1745)

Rock physics integration of CSEM and seismic data: a case study based on the Luva gas field

P. Harris*, Z. Du, H. H. Soleng, L. M. MacGregor, and W. Olsen, OHM-Rock

RC 2.2 (1746-1750)

The seismic imprint of cold heavy oil production

Ken Hedlin* and Arthur Chan, Husky Energy

RC 2.3 (1751-1755)

Development well targeting using prestack seismic inversion in the Muda Field, Malay Basin

V. Chaisomboonpan*, K. Intharawijitr, B. Ibrahim, A. Sirimongkolkitti, K. Wongpaet, I. Abdullah, P. Chumsena, and C. Nianfu, Carigali-PTTEPI

RC 2.4 (1756-1759)

Fluid prediction in Bonga Main Field

Hua Zhu, Shell

RC 1.4 (1726-1730)

Stress evolution due to depletion in an ellipsoidal elastoplastic reservoir

Victor Dunayevsky and Michael Myers, Shell; Danil Safin, U of Houston

RC 1.5 (1731-1735)

Seismic detection of paleocave system and its influence on carbonate reservoir compartmentalization

Qifeng Dou* and Yuefeng Sun, Texas A&M U; Charlotte Sullivan, Pacific Northwest Nat'l Lab

RC 1.6 (1736-1740)

A new method of formation evaluation for fractured and caved carbonate reservoir: A case study from Lundong area, Tarim Basin

Lulu Cai* and Sam Zandong Sun, China U of Petroleum; Youjun Xiao, CNPC Case Studies

RC 2.5 (1760-1764)

Quantifying reservoir heterogeneity: A case study of clastic reservoirs, Bohai Bay Basin, China

Qian Song* and Yuefeng Sun, Texas A&M U; Jie Zhou, PetroChina

RC 2.6 (1765-1769)

Case study of a heavy oil reservoir interpretation using V_P/V_S ratio and other seismic attributes

Carmen Dumitrescu*, Sensor; Larry Lines, U of Calgary

RC 2.7 (1770-1774)

Fluid contacts and net-pay identification in three phase reservoirs using seismic data

J. Gil*; Fusion; R. Pérez, J. Cuesta, R. Altamar, M. Sanabria, Petrodelta

RC 2.8 (1775-1779)

Fracture characterization using seismic data in a west Kuwait field

A. Al-Kandari and R. Kumar, Kuwait Oil; P. Convert, S. Ortet, and G. Lecante, Beicip-Franlab

Inversion Uncertainty and Rock Properties

RC 3.1 (1780-1784)

4D petrophysical seismic inversion on the Troll West Field

I. Machecler* and T. Coléou, CGGVeritas; K. Gjerding, N. Skjei, A. N. Haaland, and P. Riste, StatoilHydro

RC 3.2 (1785-1789)

Integrating stochastic rock physics in seismic predrill prospect risk and reservoir quality assessment

H. Kjongsberg*, R. Hauge, and O. Kolbjørnsen, Norwegian Computing Center; A. Buland, StatoilHydro

RC 3.3 (1790-1794)

Uncertainty of estimating lithology probability from deterministic inversion

Mark Sams* and Denis Saussus, Fugro-Jason

RC 3.4 (1795-1799)

A reservoir characterization study in the Burgos Basin including simultaneous prestack inversion and lithology prediction

G. Garcia*, C. Sanz, P. Sherratt, S. Assefa, F. Pallottini, and E. Bendel, Schlumberger; J. L. Arroyo and V. H. de la Rosa, Pemex

Seismic Attributes and their Application

RC 4.1 (1820-1824)

Clustering bed sets from the Barnett shale using diffusion map attributes

Bradley Wallet* and Roderick Perez, U of Oklahoma

RC 4.2 (1825-1829)

Time-frequency characterization of seismic data using local attributes

Guochang Liu*, China U of Petroleum-Beijing; Sergey Fomel, U of Texas-Austin; Xiaohong Chen, China U of Petroleum

RC 4.3 (1830-1834)

Seismic attribute analysis based on multiattributes fractal dimension

H. Yang*, X. Zheng, X. Liu, L. Sun, X. Yu, and J. Li, PetroChina

RC 4.4 (1835-1839)

Thickness estimates of heterogeneous reservoirs using seismic data, rock physics, and wavelet transforms

Kyle Spikes, U of Bergen

RC 3.5 (1800-1804)

Subsalt overpressure detection before drilling using wave equation migration technologies

Morgan Brown* and Joseph Higginbotham, Wave Imaging Technology

RC 3.6 (1805-1809)

Petrophysical properties estimation in a crosswell study integrated with statistical rock physics

Dario Grana*, Ernesto Della Rossa, and Claudio D'Agosto, Eni

RC 3.7 (1810-1814)

Joint inversion of time-lapse seismic and production data using VFSA with local thermal regulation and pilot point parameterization

A. Sena*, M. Sen, P. Stoffa, R. Seif, and Long Jin, U of Texas-Austin

RC 3.8 (1815-1819)

Calibration of prestack simultaneous impedance inversion using rock physics

Scott Singleton and Rob Keirstead, Rock Solid Images

RC 4.6 (1840-1844)

Seismic quality monitoring during processing for reservoir characterization

B. Paternoster*, P.-O. Lys, E. Crouzy, and B. Pagliccia, Total

Volume 4

RC 4.7 (1845-1849)

The use of seismic attributes and spectral decomposition to support the drilling plan of the Uracoa-Bombal Fields

J. Cuesta*, R. Pérez, F. Hernández, W. Carrasquel, Pdvs; R. Cabrera and C. Moreno, Fusion Petroleum; J. Castagna, U of Houston

RC 4.8 (1850-1854)

Structural and stratigraphic interpretation using spectral decomposition: Applications in deepwater settings

J. Sierra, W. Marín*, M. Bonilla, and H. Campos, IGS

Modeling and Facies Identification

RC 5.1 (1855-1859)

Induced seismicity after termination of rock stimulations: Possibilities for reservoir characterization

Cornelius Langenbruch* and Serge Shapiro, Freie U Berlin

RC 5.2 (1860-1864)

Effects of poroelastic coupling on microseismic signatures

M. Schoenball*, U Karlsruhe; T. Müller, CSIRO; B. Müller, Freie U Berlin; O. Heidbach, German Research Ctr for Geosciences

RC 5.3 (1865-1869)

Reservoir model updating in the history matching process constrained by 3D seismic data

Qinglong Xia and Zhanghong Shen, CNOOC; Xuri Huang*, Sunrise Petrosolutions

RC 5.4 (1870-1874)

Toward a better seismic to well tie in complex media

Hassan Allouche*, Pierre Thore, and Thomas Monnerie, Total

General Topics

RC P1.1 (1895-1899)

Net thickness prediction for sand-shale interbedded reservoirs using 90-degree phase seismic traces

Wenfeng Huang*, Fengchang Yao, and Hongbing Li, PetroChina

RC P1.2 (1900-1904)

Stochastic joint inversion of 2D seismic and seismoelectric signals for reservoir characterization

Abderrahim Jardani and André Revil*, Colorado School of Mines

RC P1.3 (1905-1909)

Application of channel sand reservoir characterization in Gangxi area of Huanghua Depression, Bohai Bay Basin

Deshuang Chang*, Hongtao Chen, and Mengling Zhou, BGP CNPC

RC P1.4 (1910-1914)

Spectrum decomposition technology based on physical wavelet transform and its application

Zhu Zhenyu*, Zhao Wei and Song Liang, CNOOC Research Center

RC 5.5 (1875-1879)

Seal identification from time-lapse multicomponent seismic data, Rulison Field, Piceance Basin, Colorado

Thomas Davis*, Robert Benson, and Trevor Stroker, Colorado School of Mines

RC 5.6 (1880-1884)

Mapping porosity distribution in a vuggy carbonate reservoir integrating seismic attributes with borehole image logs through a supervised facies analysis

Pedro Álvarez*, Jean Rangel, and Maybé Martinez, Pdvs

RC 5.7 (1885-1889)

Well facies based supervised classification of prestack seismic: Application to a turbidite field

Kamal Hami-Eddine*, Pascal Klein, and Loic Richard, Paradigm

RC 5.8 (1890-1894)

Sandstone petrofacies prediction to characterize permeability for Postle Field, Oklahoma

Crucelis López* and Thomas Davis, Colorado School of Mines

RC P1.5 (1915-1919)

Extrapolation of log properties by integrating fuzzy self-organizing maps and local linear modeling

Mehdi Eftekharihar, U of Houston

RC P1.6 (1920-1924)

Mapping interior of reservoirs and geobodies by seismic facies volume analysis techniques

Jianguo Yan*, Qiang Zhu, and Qian Chen, Chengdu U of Technology

RC P1.7 (1925-1929)

Reef identification for subsalt carbonate reservoir horizontal prediction

H. Zhang*, L. Sun, W. Sun, and J. Tian, BGP

RC P1.8 (1930-1934)

Reservoir characterization as a guide to inversion — A case study from a deep sandstone reservoir in Block B, Saudi Arabia

J. Li, Y. Li, J. Huang, T. Zheng, Y. Mo, and W. Rizer, LandOcean

Pore to Seismic Scale Heterogeneity Models and Measurements

RP 1.1 (1935-1939)

Pore scale modeling of rock properties and comparison to laboratory measurements

X. Zhan*, MIT; L. Schwartz and W. Smith, Schlumberger-Doll; N. Toksöz and D. Morgan, MIT

RP 1.2 (1940-1944)

Scale independence of rock physics transforms

J. Dvorkin* and C. Scotellaro, Stanford U; Q. Fang, N. Derzhi, and A. Nur, Ingrain

RP 1.3 (1945-1949)

Rock-physics-based heterogeneity characterization of a carbonate reservoir, Permian Basin

Qifeng Dou* and Yuefeng Sun, Texas A&M U; Charlotte Sullivan, Pacific Northwest Nat'l Lab

RP 1.4 (1950-1954)

Fast P-wave conversion scattering into slow S-wave

Tobias Müller*, CSIRO Petroleum; Pratap Sahay, Cicese

Computational Rock Physics for Challenging Reservoirs

RP 2.1 (1975-1979)

Seismic attenuation of double-porosity media derived from numerical relaxation experiments

Fabian Wenzlau*, U Karlsruhe; Johannes Altmann and Tobias Müller, CSIRO

RP 2.2 (1980-1984)

Improved granular medium model for unconsolidated sands using coordination number, porosity, and pressure relations

Tanima Dutta*, Gary Mavko, and Tapan Mukerji, Stanford U

RP 2.3 (1985-1989)

Multiple scattering of microseismic signals in fracture networks

Joachim Miksat*, Karlsruhe U; Tobias Muller, CSIRO

RP 2.4 (1990-1994)

Determination of fluid permeability and specific storage in tight rocks from 1D diffusion induced by constant-rate fluid injection

Rituparna Sarker*, Mike Batzle, and Ning Lu, Colorado School of Mines

RP 1.5 (1955-1959)

Dispersion of elastic waves in carbonate rocks

Ida Fabricius*, Technical U of Denmark; Gregor Eberli, U of Miami

RP 1.6 (1960-1964)

R – From laboratory data to 4D seismic interpretation

Rune Holt and Erling Fjær, Sintef Petroleum Research/NTNU

RP 1.7 (1965-1969)

Investigating Thomas-Stieber model for property estimation of thin-bedded shaly-sand reservoirs

Piyapa Dejtrakulwong*, Tapan Mukerji, Gary Mavko, Stanford U

RP 1.8 (1970-1974)

Seismoelectric interface response: Experiment and theory

M. D. Schakel* and D. M. J. Smeulders, Delft U

RP 2.5 (1995-1999)

Gas hydrate formation modeling using two-phase flow simulation

Youngseuk Keehm*, Kongju Nat'l U; Jae-Hyung Lee, KIGAM

RP 2.6 (2000-2004)

Rock physics modeling of soft sedimentary rocks

Toru Takahashi* and Soichi Tanaka, Fukada Geological Inst.

RP 2.7 (2005-2009)

Accuracy of Krief, Nur, and Pride models in the study of rock physics

J. Zhang*, Ocean U of China/Petrochina; H. Li, Petrochina; H. Liu, Ocean U of China; X. Cui, Petrochina

Stress Effect and Compaction Surveillance Using 4D Seismic

RP 3.1 (2010-2014)

Experimental verification of the physical nature of velocity-stress relationship for isotropic porous rocks

M. Pervukhina, B. Gurevich*, D. N. Dewhurst, and A. F. Siggins, CSIRO

RP 3.2 (2015-2019)

Fluid and stress sensitivity in cemented sandstones

P. Avseth*, Norwegian U of Science and Technology; R. Bachrach, U of Tel Aviv; T. Bersås and A. Norenes Haaland, StatoilHydro

RP 3.3 (2020-2024)

Effective medium modeling of laboratory velocity and resistivity data on carbonates from the Apulia Platform, Italy

C. Gomez, C. Scotellaro, T. Vanorio, J. Dvorkin, and G. Mavko, Stanford U

RP 3.4 (2025-2029)

Modeling of effective pressure effect on porous reservoir rocks

Fuyong Yan* and De-Hua Han, U of Houston

RP 3.5 (2030-2034)

How micrite content affects the transport, seismic, and reactive properties of carbonate rocks. Implications for 4D seismic

Tiziana Vanorio* and Gary Mavko, Stanford Rock Physics Lab

RP 3.6 (2035-2039)

A differential scheme for modulus ratio of dry rock

H. Li*, X. Cui, J. Zhang, and W. Huang, PetroChina

RP 3.7 (2040-2044)

Laboratory measurements of static and dynamic bulk moduli in carbonate

Aiman Bakhorji* and Douglas Schmitt, U of Alberta

RP 3.8 (2045-2049)

Some relaxed constraints on the stress history of producing reservoirs and 4D seismic studies

G. Vasquez*, Petrobras/UFRJ; E. Vargas, PUC-Rio/UFRJ; J. Justen, M. Morschbacher, M. dos Santos, M. de Carvalho, C. Abreu, R. Sansonowski, Petrobras; J. L. Formento, CGGVeritas

Field Scale Fracture and Anisotropy Modeling

RP 4.1 (2050-2054)

Simple model relating shear sonic anisotropy directions to deviatoric stress tensor in deviated wells

Haitao Sun* and Romain Prioul, Schlumberger-Doll

RP 4.2 (2055-2059)

Interpreting fracture specific stiffness for fractures in anisotropic rock

Weiwei Li*, Christopher Petrovitch, and Laura Pyrak-Nolte, Purdue U

RP 4.3 (2060-2064)

Frequency-dependent reflections from a layer with attenuation caused by interlayer flow

Beatriz Quintal* and Stefan Schmalholz, ETH Zurich

RP 4.4 (2065-2069)

Attenuation and attenuation-anisotropy in laminated rocks

Kaushik Bandyopadhyay*, Jack Dvorkin, and Gary Mavko, Stanford U

RP 4.5 (2070-2074)

Estimation of third-order elasticity parameters from local seismic anisotropy measurements and geomechanical modeling

Ran Bachrach and Andrey Bakulin, WesternGeco/Schlumberger

RP 4.6 (2075-2079)

Fracture density inversion from a physical geological model using azimuthal AVO with optimal basis functions

I. Varella*, U of Edinburgh; S. Maultzsch, Total; M. Chapman and X-Y Li, British Geological Survey

RP 4.7 (2080-2084)

Forward modeling the wide-azimuth seismic response of fractured reservoirs

Mita Sengupta*, Ran Bachrach, and Romain Prioul, Schlumberger

RP 4.8 (2085-2089)

Statistical modeling of seismic reflectivities comparing Lévy stable and Gaussian mixture distributions

Tapan Mukerji*, Stanford U; Partha Routh, ConocoPhillips; Vaughn Ball, Amerada Hess

Thermal Rock Physics for Fluid and Permeability Classification

RP 5.1 (2090-2094)

CO₂ velocity measurements and models for temperatures down to -10°C and up to 200°C and pressures up to 100 MPa

Min Sun* and De-Hua Han, U of Houston; Micheal Batzle, Colorado School of Mines

RP 5.2 (2095-2099)

Velocity properties of CO₂-saturated water and methane-saturated water at temperatures up to 200 °C and pressures up to 138 MPa

Min Sun* and De-Hua Han, U of Houston

RP 5.3 (2100-2104)

Rock physics model for free CO₂: Combining laboratory P and S wave measurements with a model of CO₂ state behavior

Helen Yam* and Douglas Schmitt, U of Alberta

RP 5.4 (2105-2109)

Effect of diagenesis on elastic and transport properties using computational rock physics in realistic pore microstructure

Ratnanabha Sain*, Gary Mavko, and Tapan Mukerji, Stanford U

Reservoir Characterization from Rock Physics Perspective

RP 6.1 (2130-2134)

Staged effective medium models for velocity

M. T. Myers and L. A. Hathon, SIEP EPT

RP 6.2 (2135-2138)

Properties of tight gas sand from digital images

M. Metz and G. Briceno, Occidental Oil & Gas; E. Diaz*, Q. Fang, A. Grader, and J. Dvorkin, Ingrain

RP 6.3 (2139-2143)

Porosity and permeability development in mechanically compacted silt-kaolinite mixtures

Nazmul Haque Mondol, U of Oslo/Norwegian Geotechnical Inst

RP 6.4 (2144-2148)

Laboratory measurements of ultrasonic P-wave attenuation in partially frozen brines by using sweep signals

Jun Matsushima*, Makoto Suzuki, Yoshiyumi Kato, and Shuichi Rokugawa, The U of Tokyo

RP 5.5 (2110-2114)

A combined effective medium approach for modeling the viscoelastic properties of heavy oil reservoirs

Agnibha Das* and Michael Batzle, Colorado School of Mines

RP 5.6 (2115-2119)

Viscosity model of heavy oil with calibration of shear velocity data

De-Hua Han, U of Houston; Jiajin Liu, China U of Petroleum; Michael Batzle, Colorado School of Mines

RP 5.7 (2120-2124)

Acoustic microlapses: A novel approach to characterizing attenuation

G. Quiroga-Goode, U Autónoma de Tamaulipas

RP 5.8 (2125-2129)

Abnormal pore pressure prediction of complex structure in northeast Sichuan

W. Yu, China U of Geoscience; P. Jing, Sinopec; W. Zhu*, China U of Geoscience; Z. Li, Chengdu U of Technology; S. Zhang and Z. Qu, China U of Geoscience

RP 6.5 (2149-2154)

Lab measured properties in carbonates for better characterization of heterogeneity

Ravi Sharma*, Manika Prasad, and Michael Batzle, Colorado School of Mines

RP 6.6 (2155-2159)

Computational determination of effective properties of rocks using 3D tomographic images

Erik Saenger*, ETH Zurich/Spectraseis; Frieder Enzmann, U Mainz; Youngseuk Keehm, Kongju Nat'l U

RP 6.7 (2160-2164)

Local frequency as a direct hydrocarbon indicator

Shenghong Tai, Charles Puryear, and John Castagna, U of Houston

RP 6.8 (2165-2169)

Lateral earth stress and strain

Keith Katahara, Devon Energy

Acoustic and Electroseismic Measurements and Models

RP P1.1 (2170-2174)

The electric field induced by the fast P-wave and its nonexistence in a dynamically compatible porous medium

Hengshan Hu* and Yongxin Gao, Harbin Inst. of Technology

RP P1.2 (2175-2178)

Dielectric permittivity of natural salt rocks contaminated with clay

Sanaa Aqil* and Douglas Schmitt, U of Alberta

RP P1.3 (2179-2183)

Evaluation and improvement of velocity-prediction models and fluid substitution for argilliferous clastic reservoirs rock

H. Wang, Z. Sun*, and Y. Li, China U of Petroleum; X. Li, CNPC

RP P1.4 (2184-2188)

Explanation of dielectric enhancement of some composite media by a 3D-FDM method

Miao Luo, China U of Geosciences; Ce Liu*, U of Houston

RP P1.5 (2189-2193)

Experimental evidence of the relation between the Biot-Gassmann modulus and the bulk modulus measured by differential acoustic resonance spectroscopy of oil-saturated rocks

Bouko Vogelaar*, Stanford U; David Smeulders, Delft U; Jerry Harris, Stanford U

RP P1.6 (2194-2198)

Velocity prediction models evaluation and permeability prediction for fractured and caved carbonate reservoir: From theory to case study

Haiyang Wang and Sam Zandong Sun*, China U of Petroleum; Haijun Yang, Tarim Oilfield CNPC

RP P1.7 (2199-2202)

Nonlinear acoustic waves in fluid-saturated porous rocks

Jing Ba, Hong Cao, and Fengchang Yao, PetroChina

RP P1.8 (2203-2207)

Rock physics modeling in sandstone member of Asmari reservoir (a case study from Mansuri oil field)

Hadi Sardar*, U of Tehran; Bijan Mahbaz, Permayon

Stress History Implications on 4D Seismic

RP P2.1 (2208-2212)

Effect of compaction history on pore pressure prediction

Qiuliang Yao* and De-Hua Han, U of Houston

RP P2.2 (2213-2217)

Geomechanical and rock physics properties of an Australian northwest shelf shale

C. Delle Piane, D. Dewhurst*, A. Siggins, and M. Raven, CSIRO

RP P2.3 (2218-2222)

Joint inversion of well-log data

F. Miotti*, D. Rovetta, and G. Bernasconi, Politecnico di Milano

RP P2.4 (2223-2227)

V_s , V_p , and trends of elastic constants for active faults

Stewart Thomas Taylor, Schlumberger

RP P2.5 (2228-2232)

Laboratory analysis of seismic parameters of volcanic rock samples from Daqing oil field

Lailin Li, Qingling Wu, and Haibo Zhao*, Daqing Oilfield Co; Xiangyang Wu, Chinese Academy of Sciences

RP P2.6 (2233-2237)

Application of Greenberg-Castagna model in igneous rock region

X. Wang*, Y. Zhang, P. Yan, L. Liu, G. Wang, Li Xiaoxi, X. Xiaoyun, BGP

RP P2.7 (2238-2242)

Mixing models and frame moduli bounds in complex lithologies

Aslan Gassiyev and John Castagna, U of Houston

Full Waveform Inversion I

SI 1.1 (2243-2247)

Scaling of the objective function gradient for full waveform inversion

A. Baumstein*, J. E. Anderson, D. L. Hinkley, and J. R. Krebs, ExxonMobil

SI 1.2 (2248-2252)

Sequentially ordered single-frequency 2D acoustic waveform inversion in the Laplace-Fourier domain

Nam-Hyung Koo*, KIGAM; Changsoo Shin and Young Ho Cha, Seoul Nat'l U; Keun-Pil Park, KIGAM

SI 1.3 (2253-2257)

Robustness of Laplace-domain waveform inversion for coherent noisy data

Wansoo Ha*, Sukjoon Pyun, Jewoo Yoo, and Changsoo Shin, Seoul Nat'l U

SI 1.4 (2258-2262)

2D Laplace-Fourier-domain full waveform inversion for both velocity and density models: An experience of the 2004 BP velocity-analysis benchmark data set

Young Ho Cha* and Changsoo Shin, Seoul National U

SI 1.5 (2263-2267)

2D Laplace-domain waveform inversion using adaptive finite element method

Young Ho Cha* and Changsoo Shin, Seoul National U

SI 1.6 (2268-2272)

Application of acoustic full waveform inversion to the synthetic Valhall velocity model

V. Prieux, S. Operto, and R. Brossier, U Nice Sophia Antipolis; J. Virieux, U Joseph Fourier

SI 1.7 (2273-2277)

Fast full wave seismic inversion using source encoding

J. R. Krebs*, J. E. Anderson, D. Hinkley, A. Baumstein, S. Lee, R. Neelamani, and M.-D. Lacasse, ExxonMobil

SI 1.8 (2278-2282)

Viscoelastic full waveform inversion of North Sea offset VSP data

Christophe Barnes*, U de Cergy-Pontoise; Marwan Charara, Inst. de Physique du Globe de Paris

Full Waveform Inversion II

SI 2.1 (2283-2287)

3D common-azimuth wave-equation migration velocity analysis

Weihong Fei*, Paul Williamson, Alexandre Khoury, Total

SI 2.2 (2288-2292)

3D frequency-domain full waveform inversion with phase encoding

Hafedh Ben-Hadj-Ali*, U de Nice Sophia-Antipolis; Stephane Operto, CNRS; Jean Virieux, U Joseph Fourier

SI 2.3 (2293-2297)

2D seismic imaging of the Valhall model from synthetic OBC data by frequency-domain elastic full-waveform inversion

Romain Brossier and Stephane Operto, U Nice Sophia-Antipolis; Jean Virieux, U Joseph Fourier

SI 2.4 (2298-2301)

Acoustic waveform inversion vs. elastic data

Denes Vigh*, William Starr, and Pavan Elapavuluri, WesternGeco

SI 2.5 (2302-2306)

Double-difference elastic waveform tomography in the time domain

Huseyin Denli and Lianjie Huang, Los Alamos Nat'l Lab

SI 2.6 (2307-2311)

Numerical tests on generalized diffraction tomography

Xiaosan Zhu* and Ru-Shan Wu, U of California

SI 2.7 (2312-2316)

Focal mechanism determination using high frequency, full waveform information

J. Li*, H. Zhang, H. S. Kuleli, and M. N. Toksöz, MIT

SI 2.8 (2317-2321)

Differential semblance velocity analysis by reverse time migration: Image gathers and theory

Fuchun Gao, Total; William Symes, Rice U

Methods

SI 3.1 (2322-2326)

Multichannel seismic modeling and inversion based on Markov-Bernoulli random field

Alon Heimer and Israel Cohen*, Israel Inst of Technology; Anthony Vassiliou, GeoEnergy

SI 3.2 (2327-2331)

Diffusion semigroups: A diffusion-map approach to nonlinear decomposition of seismic data without predetermined basis

August Lau* and Chuan Yin, Apache; Ronald Coifman, Yale U; Anthony Vassiliou, GeoEnergy

SI 3.3 (2332-2336)

Reflectivity guided Q analysis for reservoir description

Changjun Zhang*, Sensor; Tadeusz Ulrych, U of British Columbia

SI 3.4 (2337-2341)

Compressive imaging by wavefield inversion with group sparsity

Felix Herrmann, UBC

SI 3.5 (2342-2346)

2D nonlinear inversion of walkaway data

L. Métivier* and F. Delprat-Jannaud, IFP; L. Halpern, U Paris XIII; P. Lailly, IFP

SI 3.6 (2347-2351)

Approximate constant density acoustic inverse scattering using dip-dependent scaling

Rami Nammour and William Symes, Rice U

SI 3.7 (2352-2356)

Stacking-velocity tomography with borehole constraints for tilted TI media

Xiaoxiang Wang and Ilya Tsvankin, Colorado School of Mines

SI 3.8 (2357-2361)

Seismic waveform inversion with Gauss-Newton-Krylov method

Yogi Erlangga* and Felix Herrmann, UBC

Methods and Applications

SI 4.1 (2362-2367)

Illumination analysis of wave-equation imaging with "curvelets"

Shen Wang*, Maarten de Hoop, and Bjørn Ursin

SI 4.2 (2368-2372)

An efficient algorithm for iterative nonlinear inversions

Daniel Heinze, Texas A&M U

SI 4.3 (2373-2377)

Joint inversion of 3D seismic, VSP, and crosswell seismic data

Danping Cao, Xingyao Yin, and Fanchang Zhang, China U of Petroleum

SI 4.4 (2378-2382)

Reservoir connectivity uncertainty from stochastic seismic inversion

Rémi Moyaen* and Philippe Doyen, CGGVeritas

SI 4.5 (2383-2387)

Inversion by premigration spectral shaping

Spyros Lazaratos* and Roy David, ExxonMobil

SI 4.6 (2388-2392)

Benefits from premigration spectral shaping inversion – Comparison between models and real data

Diego Hernandez*, Spyros Lazaratos and Eric Wildermuth, ExxonMobil Exploration Co

SI 4.7 (2393-2396)

Use of APSDM and EMPreSS to impact evaluation of a West Africa deepwater discovery

M. Zhang,* S. Lazaratos, Y. Yu, J. J. Lee, S. Boorman, K. Anderson, ExxonMobil; O. Illo, Esso

SI 4.8 (2397-2401)

An inversion method and its application in sedimentary characteristics interpretation

Huang Handong, Zhang Ruwei, and Zhao Di, CNPC/ China U of Petroleum

Applications

SI 5.1 (2402-2406)

Traveltime inversion for gas hydrates in Kerala-Konkan Basin, western offshore India

S. Rajput*, Commonwealth Scientific and Industrial Research Org; N. K. Thakur and P. Prasada Rao, Nat'l Geophysical Research Inst

SI 5.2 (2407-2411)

Prestack inversion for identifying volcanic intrusion and limestone build ups: A case study from the Dongxin data set, China

H. Sun, H. Wang, and Y. Yang; China Petroleum & Chemical Corp; C. Sun*, Reliable GeolInfo

SI 5.3 (2412-2416)

Seismic inversion using low-frequency seismic impedance trend computed from CSEM data

Carmen Gomez*, Tapan Mukerji, and Gary Mavko, Stanford U

SI 5.4 (2417-2421)

Poststack versus prestack stratigraphic inversion for CO₂ monitoring purposes: A case study for the saline aquifer of the Sleipner Field

V. Clochard, N. Delépine*, K. Labat, and P. Ricarte, IFP

SI 5.5 (2422-2426)

Lithology classification and prediction in the Abu Sir Field, Nile Delta, offshore Egypt

D. Maguire*, P. Seligmann, and A. El Fattah, North Alamein Petroleum; A. Spedding, D. Duncan, and O. Gawad, Hess; O. Colnard and T. Coleou, CGGVeritas

SI 5.6 (2427-2431)

Extraction of additional data using extended simultaneous multiple source inversion

Stephen Chiu* and Charles Emmons, ConocoPhillips

SI 5.7 (2432-2436)

Robust scheme for inversion of seismic and production data for reservoir facies modeling

David Echeverría*, Tapan Mukerji, and Eduardo Santos, Stanford U

SI 5.8 (2437-2441)

Fluid discrimination study from fluid elastic impedance

Shixin Zhang, Xingyao Yin, and Fanchang Zhang, China U of Petroleum

Methods and Applications

SI P1.1 (2442-2446)

A fast hybrid algorithm for spectral inversion

Sanyi Yuan* and Shangxu Wang, China U of Petroleum

SI P1.2 (2447-2451)

Ill-posed Analysis for Spectral Inversion

Sanyi Yuan, Shangxu Wang, Yongcai Yu, Rui Guo

SI P1.3 (2452-2456)

Application of spectral shaphing to improve subbasalt imaging

Bo Zhao*, Spyros Lazaratos, and Clark Trantham, ExxonMobil

SI P1.5 (2462-2466)

Seismic inversion in isotropic layered stratified media of its velocity and the shape of reflectors

Andrés Calle* and Carlos Escobar, Ecopetrol

SI P1.6 (2467-2471)

2D full waveform transmission deconvolution for true amplitude imaging below gas clouds

A. R. Ghazali*, Petronas; D. J. Verschuur and A. Gisolf, Delft U

Volume 5

SI P1.4 (2457-2461)

Quality factors estimation using wavelet's envelope peak instantaneous frequency

J. Gao* and S. Yang, Xi'an Jiaotong U; D. Wang, CNPC; R. Wu, U of California

Applications

SI P2.1 (2472-2476)

Comparisons of four methods used for seismic quality factors estimation

S. Yang*, J. Gao, W. Chen, Xi'an Jiaotong U; D. Wang, Chang-Qing Oil Field Co; B. Weng, CNOOC

SI P2.2 (2477-2481)

Seismic inversion constrained by well data and geological facies

Jun Wang, Sinopec; Xuri Huang*, Sunrise Petrosolutions

SI P2.3 (2482-2485)

An effective method for reservoir prediction for the delta front sand layers

Yi Zhang*, Ocean U of China; Mingquan Liu, CNOOC; Youjiang Zhang, Apex Solutions

SI P2.4 (2486-2490)

Enhancing resolution of seismic data based on the changing wavelet model of the seismogram

Lingling Wang* and Jinghui Gao, Xi'an Jiaotong U; Wei Zhao, CNOOC

Methods

SI P3.1 (2506-2510)

Direct Dix-type inversion in a layered VTI medium

A. Stovas, NTNU

SI P3.2 (2511-2515)

Seismic signal processing with automatic edge preserving algorithms

M. C. H. Lam, Delft U; M. D. Sacchi, U of Alberta

SI P3.3 (2516-2520)

Stochastic prestack seismic inversion using fractal prior

R. P. Srivastava and M. K. Sen*, U of Texas-Austin

SI P3.4 (2521-2525)

Grid dispersion minimization in Green's tensor used in scattering integral inversion method

Khalid Miah* and Mrinal Sen, U of Texas-Austin

SI P2.5 (2491-2495)

Multiple realization of real-coded genetic algorithm: A tool for 2D traveltime tomographic inversion

R. Rastogi*, A. Srivastava, S. Majumder, and S. Gholap, Ctr for Development of Advanced Computing

SI P2.6 (2496-2500)

Well constraint study in thin-bed reservoir poststack inversion

X. Xi*, Y. Ling, D. Sun, J. Lin, and J. Gao, BGP CNPC

SI P2.7 (2501-2505)

Log correlation, wavelet extraction, and prewhitening estimation – key components of simultaneous inversion: An example from western Siberia

Dmitry Sirotenko, Halliburton

SI P3.5 (2526-2530)

A nonlinear differential semblance strategy for waveform inversion: Experiments in layered media

Dong Sun* and William Symes, Rice U

SI P3.6 (2531-2536)

Seismic inverse scattering via Helmholtz operator factorization and optimization

Shen Wang*, Maarten de Hoop, and Jianlin Xia, Purdue U

SI P3.7 (2537-2541)

Simultaneous full-waveform inversion for source wavelet and earth model

Ke Wang*, Jerry Krebs, David Hinkley, and Anatoly Baumstein, ExxonMobil

Algorithms and Methods

SM 1.1 (2542-2546)

Continuous and discontinuous finite element methods for elastic wave propagation

Jonas De Basabe* and Mrinal Sen, U of Texas-Austin

SM 1.2 (2547-2551)

A weighted Runge-Kutta algorithm with effectively eliminating the numerical dispersion

Shan Chen and Dinghui Yang*, Tsinghua U

SM 1.3 (2552-2556)

The pseudoanalytical method: Application of pseudo-Laplacians to acoustic and acoustic anisotropic wave propagation

John Etgen* and Sverre Brandsberg-Dahl

SM 1.4 (2557-2561)

Solving the Helmholtz equation using meshless kernel-based methods

Alexey Kononov*, Dries Gisolf, and Eric Verschuur, Delft U

SM 1.5 (2562-2566)

Flexural ice wave: Modeling by analytical approach

D. Rovetta* and P. Mazzucchelli, Aresys; G. Del Molino and S. Sandroni, Eni

SM 1.6 (2567-2571)

2D seismoelectric log simulation using a finite-difference method

Wei Guan* and Hengshan Hu, Harbin Inst. of Technology

SM 1.7 (2572-2576)

Subgrid modeling via mass lumping in constant density acoustics

William Symes* and Igor Terentyev, Rice U

SM 1.8 (2577-2581)

Compressive simultaneous full-waveform simulation

Tim Lin*, Felix Herrmann, and Yogi Erlangga, UBC

Synthetic Applications

SM 2.1 (2582-2586)

Using spectral attributes to detect seismic tremor sources — A synthetic study

Marc-André Lambert and Stefan Schmalholz, ETH Zurich; Erik Saenger*, ETH Zurich/Spectraseis

SM 2.2 (2587-2591)

Quantification of uncertainty in velocity log upscaling by a Markov chain Monte Carlo method

Richard Gibson Jr.*, Texas A&M U; Kyubum Hwang, Korea Gas

SM 2.3 (2592-2596)

A global approach in seismic interpretation based on cost function minimization

Fabien Pauget, Sébastien Lacaze*, and Thomas Valding, Eliis

SM 2.4 (2597-2601)

Improved shortest-path ray tracing with locally linear velocity variations

H. Liu*, H. Zhou, Z. Zou, and F. Jiang, Texas Tech U

SM 2.5 (2602-2606)

Getting it right without knowing the answer: Quality control in a large seismic modeling project

William Symes*, Igor Terentyev, and Tetyana Vdovina, Rice U

SM 2.6 (2607-2611)

2D/3D elastic model upscaling for the wave equation based on nonperiodic homogenization

Yann Capdeville* and Laurent Guillot, Inst de Physique du Globe de Paris; Jean-Jacques Marigo, U Paris 6

SM 2.8 (2612-2616)

Application of forward modeling and interpretive processing for mapping of thin and low impedance contrast gas sands using 3D seismic attributes

Hari Lal*, S. K. Biswal, H. S. Vachak, S. N. Thakur, and S. K. Das, ONGC

Indications and Calibrations

SM P1.1 (2617-2621)

Applications of virtual refraction in time-lapse monitoring

Maria Tatanova*, St Petersburg State U; Kurang Mehta, Shell; Boris Kashtan, St. Petersburg State U

SM P1.2 (2622-2626)

Seismic indicators of gas hydrates and associated free gas

Sanjeev Rajput*, Commonwealth Scientific and Industrial Research Org; Mrinal Sen, U of Texas-Austin; Satinder Chopra, Arcis

SM P1.3 (2627-2631)

Attribute delineation of karst and channels — Calibration via elastic wave-equation modeling

Rachel Barber and Kurt Marfurt, U of Oklahoma

SM P1.4 (2632-2636)

Seismic modeling of incised valley fills of the Red Fork Formation in the Anadarko Basin — A way to resolve invisible channels

Yoryenys Del Moro*, U of Oklahoma; Yoscel Suarez*, Chesapeake/U of Oklahoma; Kurt Marfurt, U of Oklahoma

Methods and Schemes

SM P2.1 (2657-2661)

A massively parallel time-domain discontinuous Galerkin method for 3D elastic wave modeling

Vincent Etienne, U Nice Sophia-Antipolis; Jean Virieux, U Joseph Fourier; Stephane Operto, U Nice Sophia-Antipolis

SM P2.2 (2662-2666)

3D elastic wave modeling using modified high-order time stepping schemes with improved stability conditions

Chunlei Chu*, Paul Stoffa, and Roustam Seif, U of Texas-Austin

SM P2.3 (2667-2671)

A finite difference scheme for solving the eikonal equation including surface topography

Jianguo Sun*, Zhangqing Sun, and Fuxing Han, Jilin U

SM P2.4 (2672-2676)

Numerical solution of the acoustic wave equation by the rapid expansion method — A one step time evolution algorithm

Paul Stoffa*, U of Texas-Austin; Reynam Pestana, Federal U of Bahia

SM P1.5 (2637-2641)

Application of wave-equation modeling in survey of complex structure

Tian Zhenping*, Liu Jianhong, and Cheng Chunhua, BGP CNPC

SM P1.6 (2642-2646)

Seismic physical modeling at the University of Calgary

J. Wong, K. W. Hall*, E. V. Gallant, M. B. Bertram, and D. C. Lawton, Crewes

SM P1.7 (2647-2651)

Fracture detection using 2D P-wave seismic data: A physical modeling study

A. M. Ekanem*, U of Edinburgh/British Geological Survey; J. Wei, S. Wang, and B. Di, China U of Petroleum; X-Y. Li, U of Edinburgh/British Geological Survey; M. Chapman, British Geological Survey

SM P1.8 (2652-2656)

Physical modeling experiment and analysis of seismic response of a reservoir model filled with different fluids

S. Wang*, B. Di, J. Wei, and S. Zhang, China U of Petroleum/CNPC

SM P2.5 (2677-2681)

3D seismic modeling and reverse-time migration with the parallel Fourier method using nonblocking collective communications

Chunlei Chu*, Paul Stoffa, and Roustam Seif, U of Texas-Austin

SM P2.6 (2682-2686)

Elastic wave modeling with high dominant frequency directional point source using ADER scheme

Y. He*, J. Gao, W. Wang, X. Wang, and Y. Ma, Xian Jiaotong U

SM P2.7 (2687-2691)

Lateral velocity variation related correction in asymptotic true-amplitude one-way propagators

Jun Cao* and Ru-Shan Wu, U of California

SM P2.8 (2692-2696)

Seismic data modeling using parallel distributed Matlab

Kayla Bonham* and Robert Ferguson, U of Calgary

Models and Calculations

SM P3.1 (2697-2701)

3D dynamic distinct element modeling applied to laboratory simulation of hydraulic fracturing in naturally fractured reservoirs

Xueping Zhao* and Paul Young, U of Toronto

SM P3.2 (2702-2706)

Freeform modeling of faulted surfaces in seismic images

Derek Parks*, Center for Wave Phenomena, Colorado School of Mines

SM P3.3 (2707-2711)

A reflectivity method for laterally varying media

Adrian Ciucivara and Mrinal Sen, U of Texas-Austin

SM P3.4 (2712-2716)

Attenuation versus scattering in a periodically layered medium

A. Stovas, NTNU; Y. Roganov, USGPI

SM P3.5 (2717-2721)

Asymptotic calculations of the Biot's waves in porous layered fluid-saturated media

Yangjun Liu* and Gennady Goloshubin, U of Houston; Dmitriy Silin, Lawrence Berkeley Nat'l Lab

SM P3.6 (2722-2726)

Wave propagation in multilayered viscoelastic media with dipping interfaces

Chao Wang* and Jinghui Gao, Xi'an Jiaotong U

SM P3.7 (2727-2731)

Acoustic VTI modeling by a new time-space domain high-order finite-difference method

Yang Liu, China U of Petroleum;* and Mrinal Sen, U of Texas-Austin

SM P3.8 (2732-2736)

Effects of multiscale velocity heterogeneities on wave-equation migration

Yong Ma* and Paul Sava, Colorado School of Mines

Beam, Beamlet, and Other Methods

SPMI 1.1 (2737-2741)

Gaussian Beam demigration and remigration

Chuck Peng* and Jianming Sheng, Nexus

SPMI 1.2 (2742-2746)

A complex-ray Maslov formulation for beam migration

Tianfei Zhu, CGGVeritas

SPMI 1.3 (2747-2752)

Time-domain seismic imaging using beams

Sergey Fomel and Nick Tanushev, U of Texas-Austin

SPMI 1.4 (2753-2757)

Dreamlet prestack depth migration using local cosine basis and local exponential frames

Bangyu Wu*, Ru-Shan Wu, and Jinghui Gao, U of California

SPMI 1.5 (2758-2762)

Beamlet migration on irregular surface with acquisition-aperture correction

Yueming Ye*, Ru-Shan Wu, and Zhenchun Li, U of California

SPMI 1.6 (2763-2767)

Structure constrained least-squares migration

Juefu Wang*, Divestco; Mauricio Sacchi, U of Alberta

SPMI 1.7 (2768-2772)

Imaging underground structure using receiver function for P-S converted waves

S. Tsujimoto, H. Mikada*, and K. Onishi, Kyoto U; E. Asakawa, JGI

SPMI 1.8 (2773-2777)

Geometric simplicity as a migration criterion: An application of computational topology to seismic imaging

August Lau and Chuan Yin*, Apache

Reverse Time Migration

SPMI 2.1 (2778-2783)

Predicting subsalt dip-dependent illumination variations using density bubbles with RTM migration

Christof Stork* and Dave Diller, Tierra Geophysical

SPMI 2.2 (2784-2788)

A new angle-domain imaging condition for prestack reverse-time migration

Rui Yan* and Xiao-Bi Xie, U of California

SPMI 2.3 (2789-2793)

Industrial-scale reverse time migration on GPU hardware

D. Foltinek*, D. Eaton, J. Mahovsky, P. Moghaddam, and R. McGarry, Acceleware

SPMI 2.4 (2794-2798)

A stable TTI reverse time migration and its implementation

Yu Zhang and Houzhu Zhang, CGGVeritas

SPMI 2.5 (2799-2803)

Comparison of elastic and acoustic reverse-time migration on the synthetic elastic Marmousi-II OBC data set

Rongrong Lu*, Peter Traynin, and John Anderson, ExxonMobil

SPMI 2.6 (2804-2808)

Reverse-time migration by fan filtering plus wavefield decomposition

Sang Yong Suh*, KIGAM; Jun Cai, TGS-Nopec

SPMI 2.7 (2809-2813)

Reverse time migration with random boundaries

Robert Clapp, Stanford U

SPMI 2.8 (2814-2818)

Frequency-domain reverse-time migration with source estimation

Youngseo Kim*, Dong-Joo Min, and Changsoo Shin, Seoul Nat'l U

Algorithm Improvements

SPMI 3.1 (2819-2823)

Rapid expansion method for time-stepping in reverse time migration

Reynam Pestana*, Federal U of Bahia; Paul Stoffa, U of Texas-Austin

SPMI 3.2 (2824-2828)

Efficient computation of extended images by wavefield-based migration

Paul Sava*, Colorado School of Mines; Ivan Vasconcelos, ION

SPMI 3.3 (2829-2833)

Fast least squares migration with a deblurring filter

Naoshi Aoki, JGI; Gerard Schuster, U of Utah

SPMI 3.4 (2834-2838)

Globally optimized Chebyshev Fourier propagator: A wide-angle dual-domain one-way method

J-H. Zhang*, J-L. Hao, Z-X. Yao, and W-M. Wang, Chinese Academy of Sciences

SPMI 3.5 (2839-2843)

Wave-equation extended images via image-domain interferometry

Ivan Vasconcelos, ION/GXT; Paul Sava, Colorado School of Mines; Huub Douma, ION/GXT

SPMI 3.6 (2844-2848)

Decoupled wave equations for P and SV waves in acoustic VTI media

F. Liu* and S. A. Morton, Hess; S. Jiang, U of Houston; L. Ni and J. P. Leveille, Hess

SPMI 3.7 (2849-2853)

Removing S-wave noise in TTI reverse time migration

Houzhu Zhang, CGGVeritas; Guanquan Zhang, Academy of Mathematics and System Sciences CAS; Yu Zhang, CGGVeritas

SPMI 3.8 (2854-2858)

A process to suppress RTM swing noises by geologic constraints

K. Yoon*, J. Cai, B. Wang, Z. Li, J. Ji, and W. Whiteside, TGS-Nopec

Imaging Applications

SPMI 4.1 (2859-2863)

Least-squares migration/inversion of blended data

Yaxun Tang* and Biondo Biondi, Stanford U

SPMI 4.2 (2864-2868)

Least-squares migration with dip-field regularization: Application to 3D VSP data

Scott Leaney, Schlumberger; Mauricio Sacchi, U of Alberta; Tadeusz Ulrych, UBC

SPMI 4.3 (2869-2873)

Presalt depth imaging of Santos Basin, Brazil

Y. Huang*, D. Lin, B. Bai, and C. Ricardez, CGGVeritas

SPMI 4.4 (2874-2878)

3D wave-equation redatuming of common azimuth data

Dmitri Lokshantov* and Jon Kåre Lotsberg, StatoilHydro

SPMI 4.5 (2879-2883)

Imaging the sea surface using a dual-sensor towed streamer

Okwudili Orji*, U of Oslo; Walter Söllner, PGS; Leiv Gelius, U of Oslo

SPMI 4.6 (2884-2888)

2D wave equation prestack reverse-time migration for complex geology structures with rugged topography by finite-element method

Hongwei Guo* and Shangxu Wang, China U of Petroleum

SPMI 4.7 (2889-2893)

Target-oriented, least-squares imaging of blended data

D. J. Verschuur* and A. J. Berkhout, Delft U

SPMI 4.8 (2894-2898)

Seismic imaging with incoherent wavefields

A. J. Berkhout*, D. J. Verschuur, and G. Blacquière, Delft U

Migration Gathers

SPMI 5.1 (2899-2903)

Angle gathers in wave-equation imaging for VTI media

Tariq Alkhalifah, KACST; Sergey Fomel, U of Texas-Austin

SPMI 5.2 (2904-2908)

Resolution analysis of wide-azimuth angle decomposition for wave-equation migration

Gabriela Melo*, Massachusetts Institute of Technology; Paul Sava, Colorado School of Mines

SPMI 5.3 (2909-2913)

Angle-domain sensitivity kernels for migration velocity analysis: Comparison between theoretically derived and directly measured

Yaofeng He* and Xiao-Bi Xie, U of California-Santa Cruz; Hui Yang, LandOcean Energy

SPMI 5.4 (2914-2918)

Accurate conversion between offset image gathers and angle image gathers

Jianming Sheng, Nexus

SPMI 5.5 (2919-2923)

3D prestack depth migration with compensation for frequency dependent absorption and dispersion

Y. Xie*, K. Xin, J. Sun, and C. Notfors, CGGVeritas; A. K. Biswal and M.K. Balasubramaniam, Reliance Industries

SPMI 5.6 (2924-2928)

Footprint reduction by angle-weighted stacking after migration

Joanna Cooper*, Gary Margrave, and Don Lawton, U of Calgary

SPMI 5.7 (2929-2933)

Migration velocity analysis by double path-integral migration

J. Schleicher, U. Estadual de Campinas; J. C. Costa, Federal U of Para

SPMI 5.8 (2934-2938)

3D offset plane-wave finite-difference prestack time migration

Bo Feng*, Huazhong Wang, and Shaoyong Liu, Tongji U

Applications

SPMI P1.1 (2939-2943)

3D angle-domain imaging in Kirchhoff prestack time migration

Cheng Jiubing* and Ma Zaitian, Tongji U

SPMI P1.2 (2944-2948)

Wavefield separation of dual-sensor towed streamer data using Kirchhoff type datuming and migration operators

Tilman Klüver, PGS

SPMI P1.3 (2949-2954)

Stacking angle-domain common-image gathers for normalization of illumination

Guochang Liu*, China U of Petroleum-Beijing; Sergey Fomel, U of Texas-Austin; Xiaohong Chen, China U of Petroleum

SPMI P1.4 (2955-2959)

An initial depth-velocity model building method based on the seamless block model

Yu Haisheng*, Cui Jingbin, and Liu Chaoying, BGP CNPC

SPMI P1.5 (2960-2964)

Comparative analysis between common reflection surface and NMO/DMO stack techniques from the structural point of view

M. T. Duarte* and A. M. Rangel, U Industrial de Santander; G. Y. Ojeda and A. E. Calle, Ecopetrol

SPMI P1.6 (2965-2969)

Seismic imaging in the mountainous area of southern China: Statics correction compared with migration from topography

Chuanwen Sun*, Penggui Jing, and Yong Pu, China Petroleum & Chemical Corp

SPMI P1.7 (2970-2974)

Local angle domain target oriented illumination analysis and imaging using beamlets

Yu Geng*, Jian Mao, and Ru-Shan Wu, U of California

SPMI P1.8 (2975-2979)

Recognition of intrabasaltic horizons from challenging marine seismic data in the Faroe Islands

Hilmar Simonsen*, U of the Faroe Islands; Egon Nørmark, U of Aarhus

Techniques

SPMI P2.1 (2980-2984)

Comparison of shot encoding functions for reverse-time migration

Francesco Perrone* and Paul Sava, Colorado School of Mines

SPMI P2.2 (2985-2989)

Stabilizing acoustic reverse-time migration in TTI media

Robin Fletcher, Xiang Du, and Paul Fowler, WesternGeco

SPMI P2.3 (2990-2994)

Least-squares migration of simultaneous sources data with a deblurring filter

Wei Dai and Jerry Schuster, U of Utah

SPMI P2.4 (2995-2999)

Reverse time migration-inversion from single-shot data

Christiaan Stolk*, U of Amsterdam; Maarten de Hoop, Purdue U; Tim J. P. M. Op't Root, U of Twente

SPMI P2.5 (3000-3004)

Velocity-less migration of source gathers

Andrej Bóna, Curtin U

SPMI P2.6 (3005-3009)

Implicit wave-equation migration in TTI media using high order operators

A. A. Valenciano*, C. C. Cheng, N. Chemingui, and S. Brandsberg-Dahl, PGS

SPMI P2.7 (3010-3014)

Least square migration with Hessian in the local angle domain

Haoran Ren*, Ru-Shan Wu, and Huazhong Wang, U of California

SPMI P2.8 (3015-3019)

Reducing the acquisition footprint using coordinate transformation

Xiongwen Wang*, Huazhong Wang, and Jiexiong Cai, Tongji U

Computational Methods

SPMI P3.1 (3020-3024)

Accelerating 3D Fourier migration on graphics processing units
Shu-Qin Wang, Central U of Nationalities; Jin-Hai Zhang* and Zhen-Xing Yao, Chinese Academy of Sciences

SPMI P3.2 (3025-3029)

Efficient 3D illumination analysis using local exponential frames
Jian Mao*, Xi'an Jiaotong U; Ru-Shan Wu, U of California

SPMI P3.3 (3030-3034)

3D localized prestack depth migration on workstations
Xiaomin Zhao*, Jianming Sheng, and Ying Hu, Nexus

SPMI P3.4 (3035-3039)

Accelerating 3D convolution using streaming architectures on FPGAs
H. Fu* and R. G. Clapp, Stanford U; O. Mencer, Imperial College London; O. Pell, Maxeler

SPMI P3.5 (3040-3044)

Anisotropic reverse-time migration using co-processors
W. Liu, T. Nemeth, A. Loddoch, J. Stefani, R. Ergas, L. Zhuo, and B. Volz, Chevron; O. Pell and J. Huggett, Maxeler

SPMI P3.6 (3045-3049)

A prestack depth migration method with large extrapolation step size and its application
Changlong Wang*, Chengxiang Wang, J. Zhang, S. Wang, and S. Jiang, BGP CNPC

SPMI P3.7 (3050-3054)

An output imaging scheme of the 3D common reflection surface stack
K. Yang*, C. Huang, X. Zhu, and Z. Ma, Tongji U

SPMI P3.8 (3055-3058)

A method of accelerating seismic prestack time migration by GPU
Bo Li*, Xiao-long Tong, and You-ming Li, Chinese Academy of Sciences

Multiples I

SPMUL 1.1 (3059-3063)

A new, clear, and meaningful definition of linear inversion: Implications for seismic inversion of primaries and removing multiples
Arthur Weglein, U of Houston

SPMUL 1.2 (3064-3067)

A simplified method for 1.5D interbed multiples prediction based on inverse scattering series
D. Jin*, F. Yang, J. Zeng, and Y. Li, Geophysical Prospecting; Yike Liu and Xu Chang, Chinese Academy of Sciences

SPMUL 1.3 (3068-3072)

3D surface related multiple elimination in the presence of a complex water bottom geometry – A case study from offshore Nigeria
Stephen McHugo* and Alex Cooke, WesternGeco; Patrick Charron, Total

SPMUL 1.4 (3073-3077)

Free-surface multiple attenuation using inverse data processing in the coupled plane-wave domain: Field data example
Jitao Ma*, China U of Petroleum; Mrinal Sen, U of Texas-Austin; Xiaohong Chen, China U of Petroleum

Volume 6

SPMUL 1.5 (3078-3082)

Velocity and attenuation perturbations can hardly be determined simultaneously in acoustic attenuation scattering
W. A. Mulder*, Shell; B. Hak, Delft U

SPMUL 1.6 (3083-3087)

Resolution, a Gedanken tale: Sampling, blueness, and noise
Tadeusz Ulrych, UBC; Mauricio Sacchi, U of Alberta; Scott Leaney, Schlumberger

SPMUL 1.7 (3088-3092)

A robust strategy for processing 3D dual-sensor towed streamer data
T. Klüver*, P. Aaron, D. Carlson, A. Day, and R. van Borselen, PGS

Multiples II

SPMUL 2.1 (3093-3097)

Multiple suppression on land seismic data – Case history

Yijun Yuan*, China U of Geosciences; De-Hua Han, U of Houston; Ruifeng Zhang, PetroChina

SPMUL 2.2 (3098-3102)

Multiple subtraction using statistically estimated inverse wavelets

Y. Liu*, D. Jin, and X. Chang, Chinese Academy of Sciences; H. Sun, CCGVeritas

SPMUL 2.3 (3103-3107)

Multiple identification in the image domain using map modeling and map migration

C. Li*, S. A. Morton, M. G. King, F. Liu, and S. Checkles, Hess

SPMUL 2.4 (3108-3112)

Seismic data regularization for marine wide azimuth data

Sheng Xu, CCGVeritas

Multiples III

SPMUL 3.1 (3128-3132)

Fast high-resolution Radon transforms by greedy least-squares method

Juefu Wang*, Mark Ng, and Mike Perz, Divestco

SPMUL 3.2 (3133-3137)

From SRME or wave equation extrapolation to SRME and wave equation extrapolation

J. Cai*, M. Guo, S. Sen, S. Dong, R. Camp, and B. Wang, TGS-NOPEC

SPMUL 3.3 (3138-3142)

Interferometric interpolation of 3D SSP data

Sherif Hanafy, Cairo U/U of Utah; W. Cao and Gerard Schuster, U of Utah

Multiples

SPMUL P1.1 (3158-3162)

De-alias seismic data reconstruction investigation

Ying Shi*, Hong Liu, and Guofeng Liu, Chinese Academy of Sciences

SPMUL P1.2 (3163-3167)

An improved adaptive multiple subtraction method

G. Ma*, B. Ke, Y. Wu, P. Li, and Y. Fang, BGP

SPMUL P1.3 (3168-3172)

Prediction and elimination of multiples based on energy flux conservation theory and prediction operator equation

Li He* and Hong Liu, Chinese Academy of Sciences

SPMUL 2.5 (3113-3117)

Unified compressive sensing framework for simultaneous acquisition with primary estimation

T. Lin* and Felix Herrmann, UBC

SPMUL 2.6 (3118-3122)

Use of narrow azimuth data for enhanced wavefield extrapolation multiple prediction in a WAZ survey

C. Mason, B. Wang, S. Sen, J. Cai, and R. Camp, TGS-NOPEC

SPMUL 2.7 (3123-3127)

Wave-equation based residual multiple prediction and elimination in migration depth domain as an aid to seismic interpretation

B. Wang, M. Guo, C. Mason, J. Cai, S. Gajawada, and D. Epili, TGS-NOPEC

SPMUL 3.4 (3143-3147)

Estimation of primaries by sparse inversion applied to up/down wavefields

G. J. A. van Groenestijn* and D. J. Verschuur, Delft U

SPMUL 3.5 (3148-3152)

Interferometric interpolation of 3D OBS data

Weiping Cao, U of Utah

SPMUL 3.6 (3153-3157)

Multiazimuth 3D surface-related multiple elimination – Application to offshore Nile Delta

S. Barnes*, R. van Borselen, R. Hegge, and P. Aaron, PGS

SPMUL P1.4 (3173-3177)

A workflow for the processing of reflection seismic data with CRS attributes

Stefan Dümmong, Mikhail Baykulov, and Dirk Gajewski*, U of Hamburg

SPMUL P1.5 (3178-3182)

Some aspects on data interpolation: Multiple prediction and imaging

J. Cai, S. Dong*, M. Guo, S. Sen, J. Ji, B. Wang, and Z. Li, TGS-NOPEC; S. Suh, KIGAM

Seismic Noise Suppression and Near Surface Solutions

SPNA 1.1 (3183-3187)

Multiscale and multiaspect method of removal surface-wave based on the second generation curvelet transform

Jingjing Zheng*, Xingyao Yin, and Guangzhi Zhang, China U of Petroleum

SPNA 1.2 (3188-3192)

Design and realization of the Butterworth filter

Li Weibo* and Li Peiming, BGP CNPC; Wang Huazhong, Tongji U

SPNA 1.3 (3193-3197)

Multifrequency singular spectrum analysis

Vicente Oropeza* and Mauricio Sacchi, U of Alberta

Topics in Seismic Quality Improvement I

SPNA 2.1 (3208-3212)

How does seismic data quality influence pore pressure estimation and interpretation?

Gary Yu, Geotrace

SPNA 2.2 (3213-3217)

Nonlinear deconvolution using Markov chain Monte Carlo for sparse reflectivity estimation

J. I. Selvage*, BG Group; D. T. Pham, CNRS; M. A. van der Baan, U of Alberta

SPNA 2.3 (3218-3222)

Potential timing shift errors when using the discrete wavelet transform with seismic data processing

Zhou Yu and David Whitcombe, BP

SPNA 2.4 (3223-3227)

Structure-enhancing nonlinear filtering of seismic images

Yang Liu* and Sergey Fomel, U of Texas-Austin; Guochang Liu, China U of Petroleum

SPNA 1.4 (3198-3202)

Revisiting automatic first arrival picking for large 3D land surveys

Timothy H. Keho* and Weihong Zhu, Saudi Aramco

SPNA 1.5 (3203-3207)

New concepts in quality control for 3D near surface modeling

Roy Burnstad, Saudi Aramco

SPNA 2.5 (3228-3232)

OC-seislet: Seislet transform construction with differential offset continuation

Yang Liu* and Sergey Fomel, U of Texas-Austin

SPNA 2.6 (3233-3237)

How reliable is statistical wavelet estimation?

Jonathan Edgar*, BG Group; Mirko van der Baan, U of Alberta

SPNA 2.7 (3238-3243)

Addressing key land data quality challenges with passive seismic interferometry

Christof Stork, Tierra Geophysical

SPNA 2.8 (3244-3248)

A generalized probabilistic approach for processing seismic data

Arben Shtuka*, Thomas Gronnwald, and Florent Piriac, SeisSquare

Topics in Seismic Quality Improvement II

SPNA 3.1 (3249-3253)

Antialias antileakage Fourier transform

Michel Schonewille, Andreas Klaedtker, and Alan Vigner, PGS

SPNA 3.2 (3254-3258)

Interpolation by matching pursuit

Ali Özbek, Schlumberger; Ahmet Kemal Özdemir* and Massimiliano Vassallo, WesternGeco

SPNA 3.3 (3259-3263)

Interpolation with Fourier-radial adaptive thresholding

William Curry, ExxonMobil

SPNA 3.4 (3264-3268)

Multidimensional spectrum-guided reconstruction of aliased data

Mostafa Naghizadeh and Mauricio Sacchi*, U of Alberta

SPNA 3.5 (3269-3273)

Structure-adaptive anisotropic filter for seismic detail preserving smoothing

W. Wang*, J. Gao, X. Wang, Y. He, Xi'an Jiaotong U

SPNA 3.6 (3274-3278)

Zero- and first-order approximations for least-squares estimation of seismic signal contaminated by coherent and random noise of complex structure

Y. Tyapkin, UkrSGPI; B. Ursin, NTNU; O. Silinska, UkrSGPI; O. Tiapkina*, NTNU

SPNA 3.7 (3279-3283)

Enhanced velocity analysis, binning, gap infill, and imaging of sparse 2D/3D seismic data by CRS techniques

G. Gierse*, H. Trappe, J. Pruessmann, and G. Eisenberg-Klein, TEEC; J. Lynch, Perenco; D. Clark, Chevron

SPNA 3.8 (3284-3291)

3D CRS analysis: A data-driven optimization for the simultaneous estimate of the eight parameters

E. Bonomi, A. M. Cristini, and D. Theis, CRS4-Imaging; P. Marchetti*, Eni

Acquisition Noise Analysis and Removal

SPNA 4.1 (3292-3296)

Surface waves suppression using interferometric prediction and curvlet domain hybrid L1/L2 norm subtraction

Yibo Wang*, Peking U; Shuqian Dong and Yanwei Xue, U of Utah

SPNA 4.2 (3297-3301)

Groundroll prediction by interferometry and separation by curvlet-domain matched filtering

Jiupeng Yan and Felix Herrmann, UBC

SPNA 4.3 (3302-3306)

Ground roll attenuation with adaptive eigenimage filtering

Peter Cary* and Changjun Zhang, Sensor

SPNA 4.4 (3307-3311)

Constrained propeller ship noise removal and its application to OBC data

M. Guo*, J. Cai, J. Specht, and B. Wang, TGS-NOPEC

SPNA 4.5 (3312-3316)

Attenuation of noise in marine seismic data

Thomas Elboth* and Dag Hermansen, Fugro

SPNA 4.6 (3317-3321)

Direct imaging of group velocity dispersion curves in shallow water

Christopher Liner*, U of Houston; Lee Bell and Richard Verm, Geokinetics

SPNA 4.7 (3322-3326)

Coherent and random noise attenuation using the intrinsic time-scale decomposition

Ahmed Zegadi* and Khalil Zegadi, Sonatrach

SPNA 4.8 (3327-3331)

Sparse coding for data-driven coherent and incoherent noise attenuation

Sam Kaplan* and Mauricio Sacchi, U of Alberta; Tadeusz Ulrych, UBC

Methods of Random Noise Suppression

SPNA 5.1 (3332-3336)

Prestack rank-reducing noise suppression: Theory

Stewart Trickett* and Lynn Burroughs, Kelman

SPNA 5.2 (3337-3341)

Prestack rank-reducing noise suppression: Practice

Lynn Burroughs* and Stewart Trickett, Kelman

SPNA 5.3 (3342-3346)

Vector median filter and its applications in geophysics

Yike Liu, Chinese Academy of Sciences; Yi Luo* and Yuchun Wang, Saudi Aramco

SPNA 5.4 (3347-3351)

Adaptive linear prediction filtering for random noise attenuation

Mauricio Sacchi* and Mostafa Naghizadeh, U of Alberta

SPNA 5.5 (3352-3355)

Poststack reduction of random (and some coherent) noise via principal component analysis

Charles Blumentritt* and Mark Stevenson, Geo-Texture

SPNA 5.6 (3356-3360)

Incoherent noise suppression with curvelet-domain sparsity

Vishal Kumar* and Felix Herrmann, UBC

SPNA 5.7 (3361-3366)

Footprint suppression with basis pursuit denoising

Rui Zhang, U of Houston

SPNA 5.8 (3367-3371)

Dealing with the noise — Improving seismic whitening and seismic inversion workflows using frequency split structurally oriented filters

Steven Helmore, Helix RDS

Seismic Noise Suppression

SPNA P1.1 (3372-3376)

A robust amplitude preserving noise suppression method for land and OBS seismic data

Stephen Reynolds*, John Bice, and Ruben Martinez, PGS

SPNA P1.2 (3377-3380)

Random noise attenuation based on orthogonal polynomials transform

Xue Yaru* and Chen Xiaohong, China U of Petroleum

SPNA P1.3 (3381-3385)

Ground-roll attenuation based on SVD filtering

M. J. Porsani*, M. G. Silva, P. E. M. Melo, CPGG; B. Ursin, NTNU

SPNA P1.4 (3386-3389)

Seismic wavefield separation and noise attenuation in linear domain via SVD

Hongyan Shen*, Xi'an Shiyu U; Qingchun Li, Chang'An U

SPNA P1.5 (3390-3394)

Footprint removal using adaptive subtraction algorithms for seismic attribute quality enhancement: A case study of Anadarko Basin Red Fork incised valley system

Oswaldo Davogustto*, U of Oklahoma; Yoscel Suarez, Chesapeake/U of Oklahoma; Kurt Marfurt, U of Oklahoma

Recent Advances and the Road Ahead

SS 1.1 (3395-3399)

Past and future trends: Two decades of ocean bottom seismic experience in light of Moore's law

Mark Thompson* and Lasse Amundsen, StatoilHydro

SS 1.2 (3400-3404)

Toward the optical oil field

Morten Eriksrud*, Jan Langhammer, and Hilde Nakstad, Optoplan

SS 1.3 (3405-3409)

The effects of generational prejudice on working environments

Richard Johnston*, Schlumberger; Dwight Smith, InnerLogix

SS 1.4 (3410-3415)

Sub-Nyquist sampling and sparsity: How to get more information from fewer samples

Felix J. Herrmann*, UBC-Seismic Lab for Imaging and Modeling

SS 1.5 (3416-3420)

Grand challenges for geophysics — A seismic vision of the future

A. J. Berkhout, Delft U

SS 1.6 (3421-3425)

A new era in land seismic: The near surface challenge

Timothy Kebo and Panos Kelamis, Saudi Aramco

Anisotropy, Fractures, and Heterogeneity: A Tribute to Mike Schoenberg I

SS 2.1 (3426-3430)

Schoenberg's angle on fractures and anisotropy: A study in orthotropy

James Berryman, Lawrence Berkeley Nat'l Lab

SS 2.2 (3431-3435)

Are penny-shaped cracks a good model for compliant porosity?

Boris Gurevich, Curtin U/CSIRO; Dina Makarynska, Curtin U; Marina Pervukhina, CSIRO

SS 2.3 (3436-3440)

Rough contacting surfaces: Similarities and differences with traction-free cracks

Romain Prioul* and Jeroen Jocker, Schlumberger-Doll; Mark Kachanov, Tufts U

SS 2.4 (3441-3445)

The sensitivity of seismic waves to the normal and shear compliance of fractures

Colin Sayers, Schlumberger

Anisotropy, Fractures, and Heterogeneity: A Tribute to Mike Schoenberg II

SS 3.1 (3466-3470)

Reflector-preserved lithological upscaling

Felix Herrmann*, U British Columbia; Yves Bernabé, MIT

SS 3.2 (3471-3475)

Multiscale propagation and imaging with wave packets

Hervig Wendt, Maarten de Hoop*, and Fredrik Andersson, Purdue U

SS 3.3 (3476-3480)

Seismic processing for GOM development projects – Business impact of anisotropy

J. Douma*, R. Frijhof, B. Hewett, M. Jacobi, M. Kohli, L. Lepre, C. Perkins, M. McRae, J. Razzano, E. Salo, and A. Stopin, Shell

SS 3.4 (3481-3485)

Radial profiling of shear slownesses in TIV formations

S. Sunaga, B.K. Sinha, T. Endo, and J. Walsh, Schlumberger

Invited Presentations

SS 4.2 (3505-3509)

Determination of in-situ stress and rock strength using borehole acoustic data

C. M. Sayers, Z. Nagy, J. Adachi, V. Singh, K. Tagbor, and P. Hooyman, Schlumberger

SS 2.5 (3446-3450)

The energy balance at linear slip interfaces

Jeroen Jocker*, David Johnson, and Romain Prioul, Schlumberger-Doll

SS 2.6 (3451-3457)

Generalization of Schoenberg's linear slip model to attenuative media: Physical modeling versus theory

T. Chichinina*, IMP; I. Obolentseva, Russian Academy of Sciences; G. Ronquillo-Jarillo, IMP; L. Gik and B. Bobrov, Russian Academy of Sciences

SS 2.7 (3458-3460)

Modeling stress, pore pressure, permeability, and saturation effects upon the seismic response using the Schoenberg-Sayers model for the pore space

Raymon Brown, Ray Brown CIP

SS 2.8 (3461-3465)

Fracture permeability and seismic wave scattering – Poroelastic linear-slip interface model for heterogeneous fractures

Seiji Nakagawa* and Larry Myer, Lawrence Berkeley Nat'l Lab

SS 3.5 (3486-3490)

Shear-wave traveltimes in inhomogeneous weakly anisotropic media

Einar Iversen*, Norsar; Veronique Farra, Inst. de Physique du Globe de Paris; Ivan Psencik, Academy of Science of Czech Republic

SS 3.6 (3491-3494)

Tensor spaces and anisotropy: A tutorial

Anthony Gangi, Texas A&M U

SS 3.7 (3495-3499)

Reflection coefficients in attenuative anisotropic media

Jyoti Behura and Ilya Tsvankin, Colorado School of Mines

SS 3.8 (3500-3504)

Properties of diclinic media

Klaus Helbig, retired

SS 4.3 (3510-3514)

Wheeler's confusion and the seismic revolution: How geophysicists saved stratigraphy

Janok Bhattacharya, U of Houston

Advanced Applications

SS P1.1 (3515-3519)

Spectral decomposition illumination of reservoir facies

K. Zhang*, K. J. Marfurt, R. M. Slatt, and Y. Guo, U of Oklahoma

SS P1.2 (3520-3524)

Coalbed methane prospect in Jamalganj coal field, Bangladesh

M. H. Rahman, U of Dhaka

SS P1.3 (3525-3529)

The integration of structural uncertainty into reservoir simulation

S. D. Harris*, S. R. Freeman, and R. J. Knipe, RDR/Leeds U

SS P1.4 (3530-3534)

Multiattribute-based net sand estimation in transitional reservoirs: Barco Formation, Sardinata Field, Colombia

G. Y. Ojeda*, P. A. García, J. L. Rubiano, F. H. Gómez, N. A. Rojas, Ecopetrol; S. A. Isabel, C. Restrepo and J. P. Aguilera, U EAFIT

Reservoir Geophysics

SS P2.1 (3544-3548)

Prediction of oil & gas saturation and/or pressure variation with time-lapse seismic elastic parameter inversion

Xiudi Jiang*, Zhenyu Zhu, and Liang Song, CNOOC

SS P2.2 (3549-3553)

Time-lapse logging data modeling and analysis

Yuedong Qiao* and Zhenyu Zhu, CNOOC

SS P2.3 (3554-3558)

Relative acoustic impedance application for thin-bed reflectivity inversion

Satinder Chopra, Arcis; John Castagna, U of Houston; Yong Xu, Arcis

SS P2.4 (3559-3563)

Toward flow simulation for CO₂ sequestration at the Dickman oil field, Ness County, Kansas

C. L. Liner*, Po Geng, J. Zeng, and H. King, U of Houston

SS P1.5 (3535-3538)

Generating accurate depth structure in poorly imaged, structurally complex regions within the Ardmore Basin, Oklahoma, using 3D seismic and structural modeling

Nigel Hicks* and Aaron Vrbenec, Chesapeake; Jay Namson, Namson Consulting

SS P1.6 (3539-3543)

Volume attribute analysis of PP and SS data from the Horseshoe Atoll, Texas

C. F. Russian*, R. A. Young, K. J. Marfurt, U of Oklahoma; A. Weir Small, Parallel Petroleum

SS P2.5 (3564-3568)

Co-processing and repeatability issues of speculative seismic data from Ewing Bank, Gulf of Mexico, for a 4D time lapse study

H. Roende*, R. Uden, and C. Meeder, Marathon; J. Opich and M. Murat, Chevron; B. Bird, M. Yu, P. Vasick, D. Wilkerson, and B. Wier, WesternGeco

SS P2.6 (3569-3573)

Resolution of microseismic moment tensors: A synthetic modeling study

David Eaton, U of Calgary

SS P2.7 (3574-3578)

Using 3D rose diagrams for correlation of seismic fracture lineaments with similar lineaments from attributes and well log data

Satinder Chopra*, Arcis; Kurt Marfurt and Ha Mai, U of Oklahoma

Medium Properties and Wave Propagations

ST 1.1 (3579-3583)

Effective dynamic properties of randomly inhomogeneous medium defined by statistically homogeneous correlation functions

Alexander Vikhorev*, Russian Academy of Sciences; Evgeny Chesnokov, U of Houston

ST 1.2 (3584-3589)

Dispersion and attenuation for the anelastic velocity-memory-stress system

David Aldridge and Leiph Preston, Sandia Nat'l Lab

ST 1.3 (3590-3594)

NPML boundary conditions for second-order wave equations

Ray McGarry* and Peyman Moghaddam, Acceleware

ST 1.4 (3595-3600)

Seismic interferometry, the optical theorem and a nonlinear point diffractor

Kees Wapenaar, Delft U

ST 1.5 (3601-3604)

Equations of wave propagation in nonlinear elastic anisotropic media

E. M. Chesnokov*, U of Houston; V. A. Goncharuk, Moscow State U; Y. A. Kukhareno, Russian Academy of Sciences

ST 1.6 (3605-3609)

Residual moveout and residual radii of curvature from approximate prestack depth migrations

J. F. Schneider, Bureau of Applied Geophysics

ST 1.7 (3610-3614)

Extended isochron rays in prestack depth migration

Anton Duchkov* and Maarten de Hoop, Purdue U

ST 1.8 (3615-3619)

Method of manufactured solutions for the acoustic wave equation

C. Ober*, S. Collis, B. van Bloemen Waanders, Sandia Nat'l Lab; C. Marcinkovich, ExxonMobil

Seismic Reflections and Transforms

ST P1.1 (3620-3624)

Nonhyperbolic common reflection surface

Sergey Fomel and Roman Kazinnik, U of Texas-Austin

ST P1.2 (3625-3629)

OCO ray tracing using OCO trajectories

T. A. Coimbra, A. Novais and J. Schleicher, U of Campinas

ST P1.3 (3630-3634)

Quantitative assessment of heterogeneities of complex structures in terms of propagators

Li-Yun Fu, Chinese Academy of Sciences

ST P1.4 (3635-3639)

Role of discrete Laplace and Fourier-Bessel transforms in direct problems in frequency domain

Georgy Mitrofanov* and Viatcheslav Priimenko, U Estadual do Norte Fluminense; Darcy Ribeiro, Macaé

ST P1.5 (3640-3644)

Dreamlet transform applied to seismic data compression and its effects on migration

Yu Geng*, Ru-Shan Wu, and Jinghui Gao, U of California

ST P1.6 (3645-3649)

Curvelet-domain matched filtering with frequency-domain regularization and an application to primary-multiple separation

Reza Shahidi* and Felix Herrmann, UBC

ST P1.7 (3650-3654)

2D seismic attributes extraction based on two-dimensional continuous wavelet transform

X. Wang*, J. Gao, Y. He, and W. Wang, Xi'an Jiaotong U

ST P1.8 (3655-3659)

Source-receiver seismic interferometry

Andrew Curtis, U of Edinburgh

Velocity Estimation for Complex Imaging

SVIP 1.1 (3660-3664)

Salt interpretation for depth imaging – Where geology is working in the geophysical world

Quincy Zhang*, Itze Chang, and Li Li, TGS-Nowpec

SVIP 1.2 (3665-3669)

Nonhyperbolic reflection tomography for better imaging and interpretation

Zhaobo Meng* and Chuck Peng, Nexus

SVIP 1.3 (3670-3674)

Velocity analysis for plane-wave source migration using the finite-frequency sensitivity kernel

Hui Yang*, LandOcean Energy Services; Xiao-Bi Xie and Yaofeng He, U of California-Santa Cruz

SVIP 1.4 (3675-3679)

Seismic traveltimes inversion to complement reflection profile in imaging a glacially buried valley

Oluwafemi Ogunsuyi* and Douglas Schmitt, U of Alberta; Jawwad Ahmad, Fugro-Jason

High-Resolution Velocity Estimation

SVIP 2.1 (3700-3704)

Seismic image segmentation with multiple attributes

Adam Halpert*, Robert Clapp, and Biondo Biondi, Stanford U

SVIP 2.2 (3705-3709)

Event-consistent volume dip-azimuth-curvature estimation with complex-trace beamforming

Alexander Droujinine, Shell

SVIP 2.3 (3710-3714)

Moveout analysis by time warping

William Burnett* and Sergey Fomel, U of Texas-Austin

SVIP 2.4 (3715-3719)

Wave-equation migration velocity analysis using extended images

Tongning Yang* and Paul Sava, Colorado School of Mines

SVIP 1.5 (3680-3684)

Complex-salt model building using combination of interactive beam migration and localized RTM

B. Wang, C. Mason, K. Yoon, J. Ji, and J. Cai, TGS-Nowpec; S. Suh, KIGAM

SVIP 1.6 (3685-3689)

Complex 3D velocity-depth model with RTM from top-to-down

E. Menyoli*, S. Graber, G. Lu, and J. White, Marathon Oil

SVIP 1.7 (3690-3694)

A migration correction approach to time-to-depth conversion of velocity

Lianping Zhang* and Hong Liu, Chinese Academy of Sciences

Volume 7

SVIP 1.8 (3695-3699)

Gas hydrate energy resource potential estimation offshore southwestern Taiwan from seismic velocity and AVO analyses

C.-C. Tsai, C.-S. Liu*, and P. Schnurle, Nat'l Taiwan U; H.-W. Chen, Nat'l Central U

SVIP 2.5 (3720-3724)

Anisotropic model building with uncertainty analysis

A. Bakulin, D. Nichols, K. Osypov*, M. Woodward, and O. Zdraveva, WesternGeco/Schlumberger

SVIP 2.6 (3725-3729)

Reducing the uncertainty in the data processing of PS converted waves

Hengchang Dai* and Xiang-Yang Li, British Geological Survey

SVIP 2.7 (3730-3734)

High resolution interval velocity estimation in the depth domain

F. Hong*, J.-L. Boelle, B. Duquet, Total; L. Nicoletis, IFP

SVIP 2.8 (3735-3739)

Fast estimation of CRS parameters using local slopes

L. T. Santos and J. Schleicher, U Estadual de Campinas; J. C. Costa, U of Para; A. Novais, U Estadual de Campinas

Long Offset and Case Studies

SVIP P1.1 (3740-3744)

Long offset depth processing for subbasalt imaging in west of Bavla area Cambay Basin, Gujarat, India

R. Chand, D. C. Lohani, and U. K. Chatterjee, ONGC; C. H. Mehta, S. P. Singh*, Trinh Ngoc Anh, and G. Yao, Paradigm

SVIP P1.2 (3745-3749)

Long-offset NMO approximations for a layered VTI model: Model study

Emanouil Blais, VSFusion

SVIP P1.3 (3750-3754)

The effects of structural components on seismic wave velocity in incompetent units: Case study, Gachsaran Formation, SW Iran

Naser Tamimi*, Colorado School of Mines; Iraj Abdollahie Fard, Nat'l Iranian Oil; Shahram Sherhati, Nat'l Iranian Oil/Petroleum U

Faults, Stress, and Strain

TL 1.1 (3770-3774)

Analysis of dynamic fracture behavior using 4D seismic data

H. G. Borgos*, B. Savary-Sismondini, M. Nickel, and L. Sonneland, Schlumberger

TL 1.2 (3775-3779)

Well performance diagnostics by integrating 4D seismic in a coupled fluid flow/geomechanical model

Jarle Haukås, Jan Øystein Haavig Bakke*, and Lars Sonneland, Schlumberger

TL 1.3 (3780-3784)

Use of time-lapse OBC for postproduction shallow monitoring

D. Rampton*, P. Hatchell, P. Wills, and C. Didraga, Shell

TL 1.4 (3785-3789)

Estimating velocity and thickness changes of compacting reservoirs combining 4D seismic and gravimetric measurements

Martin Landrø*, NTNU; Lasse Amundsen, Statoil

SVIP P1.4 (3755-3759)

Velocity analysis on CMP sections based on the smearing paradigm

D. L. Macedo, J. J. S. de Figueiredo, and R. S. Portugal

SVIP P1.5 (3760-3764)

Multidimensional moveout estimation

A. Klokov, Gubkin Russian U of Oil and Gas; G. Hoecht, R. Baina, and Evgeny Landa, Opera

SVIP P1.6 (3765-3769)

Simulated annealing for pattern detection and velocity analysis

K.-J. Huang, Kaohsiung U; K.-Y. Huang*, Chiao Tung U; L. Wang, Kaohsiung U; Y.-L. Chou and Y.-H. Hsieh, Chiao Tung U; S.-C. Hsieh, Kaohsiung U

TL 1.5 (3790-3794)

Estimation of changes in gravity anomaly due to a compacting reservoir

Pamela Tempone* and Martin Landrø, Norwegian U of Science and Technology

TL 1.6 (3795-3799)

Well performance analysis using 4D seismic

Michael Nickel* and Lars Sonneland, Schlumberger

TL 1.7 (3800-3804)

4D: From mainstream to Main Street

Stewart Levin*, Halliburton

Quantitative Analysis

TL 2.1 (3805-3809)

Prestack geostatistical fold matching to improve 4D images

Jeremy Gallop*, EnCana; Rodney Couzens, Sensor

TL 2.2 (3810-3814)

Time-lapse seismic makes a significant business impact at Holstein

H. Ebaid*, M. Nasser, and P. Hatchell, Shell; D. Stanley, BP

TL 2.3 (3815-3819)

Quantitative 4D time-lapse characterization: Three examples

A. Grandi*, S. Wauquier, H. Cumming, C. Deplanté, and C. Hubans, Total

TL 2.4 (3820-3824)

Blocky inversion of time-lapse seismic AVO data

Jo Eidsvik*, NTNU; Ulrich Theune, StatoilHydro

TL 2.5 (3825-3829)

Joint target-oriented wave-equation inversion of multiple time-lapse seismic data sets

Gboyega Ayeni* and Biondo Biondi, Stanford U

TL 2.6 (3830-3834)

Global 4D seismic inversion and time-lapse fluid classification

Y. Lafet, B. Roure, P. M. Doyen*, and H. Buran, CGGVeritas

TL 2.7 (3835-3839)

The importance of localization in the assimilation of 4D seismic data in the data assimilation process using the EnKF

M. Trani*, Delft U; R. Arts, Delft U/TNO; O. Leeuwenburgh and J. Brouwer, TNO; S. Douma, Shell

TL 2.8 (3840-3844)

Direct correlation of 4D seismic and well activity for dynamic reservoir interpretation

Yi Huang* and Colin MacBeth, Heriot-Watt U

Land, CO₂, and New Developments

TL 3.1 (3845-3849)

Spectral decomposition applied to time-lapse seismic interpretation, Rulison Field, Colorado

Nelson Rojas*, Ecopetrol; Thomas Davis, Colorado School of Mines

TL 3.2 (3850-3854)

4D CSEM feasibility study: A land example

Cyril Schamper*, U of Paris 6; Simon Spitz, CGGVeritas; Faycal Rejiba, U of Paris 6

TL 3.3 (3855-3859)

Effective monitoring for CO₂ sequestration with virtual sources

Jeongmin Yu, Joongmoo Byun, and Soon Jee Seol, Hanyang U

TL 3.4 (3860-3864)

Crosswell seismic – A deep look into CO₂ injection and sequestration monitoring

Bruno Verduzco*, Bradley Bryans, and Pedro Carrillo, Z-Seis

TL 3.5 (3865-3869)

A numerical sensitivity analysis to monitor CO₂ sequestration in layered basalt with coda waves

M. Khatiwada*, K. van Wijk, and L. Adam, Boise State U; M. Haney, USGS Alaska Volcano Observatory

TL 3.6 (3870-3874)

Geophysical data management maturity for CO₂ sequestration: An emerging challenge

Jess Kozman, Carbon Lifecycle; Kandy Lukats, Knowledge Reservoir

TL 3.7 (3875-3878)

Testing of time-lapse seismic monitoring with early arrival waveform tomography

C. Hogan*, U of Calgary; K. Hedlin, Husky; G. Margrave and M. Lamoureux, U of Calgary

TL 3.8 (3879-3883)

Fluid pressure arrival time tomography: Estimation and assessment in the presence of inequality constraints, with an application to production at the Krechba Field, Algeria

A. Rucci, Politecnico di Milano; D. W. Vasco, Berkeley Lab; F. Novali, Tele-Rilevamento Europa

Acquisition, Processing, Modeling

TL 4.1 (3884-3888)

4D seismic repeatability: Lessons from Hoover-Madison-Marshall

Alisa Miller* and Michael Helgerud, ExxonMobil

TL 4.2 (3889-3893)

Seismic monitoring of steam flooding in a depleted mobile heavy oil field: Model studies of steam drive and steam assisted gravity drainage

Sung Yuh*, Total; M. Le Ravalec, IFP; C. Hubans, P.-O. Lys, and D. Foulon, Total

TL 4.3 (3894-3898)

Focused seismic monitoring: From acquisition to interpretation in 48 hours

A. Morton*, M. Andersen, M. Thompson, StatoilHydro; T. Probert, WesternGeco

TL 4.4 (3899-3903)

An approach for quasi-continuous time-lapse seismic monitoring with sparse data

Adeyemi Arogunmati* and Jerry Harris, Stanford U

4D Case Studies

TL 5.1 (3924-3928)

4D seismic in deep water at the Dikanza Field, offshore Angola, West Africa

P. Mitchell*, R. Paez, D. Johnston, G. Mohler, ExxonMobil; C. da Cunha Neto, Sonangol

TL 5.2 (3929-3933)

Initial interpretation results from the Bonga 4D time-lapse seismic

I. Al-Mandhary*, R. Detomo Jr., W. Gouveia, P. Hatchell, E. Legius, R. McClenaghan, and S. Weaver

TL 5.3 (3934-3938)

Crosswell seismic imaging and inversion of a Michigan reef from above and from beneath

Mohamed Ibrahim*, Wayne Pennington, and Roger Turpening, Michigan Technological U

TL 5.4 (3939-3943)

Optimized local matching of time-lapse seismic data: A case study from the Gulf of Mexico

Gboyega Ayeni*, Stanford U; Mosab Nasser, Shell

TL 4.5 (3904-3908)

Assessing the value of time-lapse seismic data in joint inversion for reservoir parameter estimation in an oil reservoir subjected to water flooding recovery: A synthetic example

A. Sena*, P. Stoffa, M. Sen, and R. Seif, U of Texas-Austin

TL 4.6 (3909-3913)

Uncertainties in rock pore compressibility and effects on time-lapse seismic modeling — An application to Norne Field

Amit Suman and Tapan Mukerji*, Stanford U

TL 4.7 (3914-3918)

Joint preconditioned least-squares inversion of simultaneous source time-lapse seismic data sets

Gboyega Ayeni*, Yaxun Tang, and Biondo Biondi, Stanford U

TL 4.8 (3919-3923)

Influence of background heterogeneity on traveltime shifts for compacting reservoirs

Rodrigo Felicio Fuck*, Schlumberger Cambridge Research; Ilya Tsvankin, Colorado School of Mines; Andrey Bakulin, WesternGeco

TL 5.5 (3944-3948)

Remaining oil thickness and well positioning using 4D at Alba Field, North Sea

A. Tura*, S. Dobbs, K. Davies, O. Hermann, and J. Zhang, Chevron

TL 5.6 (3949-3953)

4D case study in the deep water Gulf of Mexico: Hoover, Madison, and Marshall

M. B. Helgerud*, D. H. Johnston, B. G. Jardine, M. S. Udoh, N. Aubuchon, and C. Harris, ExxonMobil

TL 5.7 (3954-3958)

Using time-lapse seismic to monitor the THAI heavy oil production process

Rob Kendall, Petrobank

TL 5.8 (3959-3963)

4D seismic monitoring applied to SAGD operations at Surmont, Alberta, Canada

G. Byerley*, G. Barham, T. Tomberlin, and B. Vandal, ConocoPhillips

Waveform Tomography

TOM 1.1 (3964-3968)

Wave-equation tomography using image-space phase encoded data

Claudio Guerra*, Yaxun Tang, and Biondo Biondi, Stanford U

TOM 1.2 (3969-3973)

Waveform tomography in the Canadian Foothills: Overcoming challenges in long offset seismic data acquisition and near-surface velocity estimation

A. J. Benders* and Gerhard Pratt, U of Western Ontario; S. Charles, Talisman Energy

TOM 1.3 (3974-3978)

The effect of improved low-frequency bandwidth in full-waveform inversion for velocity

Steve Kelly*, Jaime Ramos-Martínez, and Boris Tsimelzon, PGS

TOM 1.4 (3979-3983)

Bridging the gap between ray-based tomography and wave-equation migration image gathers

P. Jouselin*, B. Duquet, F. Audebert, and J. Sirgue, Total

TOM 1.5 (3984-3988)

Nonlinear tomography for time imaging

G. Lambaré*, N. Deladerrière, Y. Traonmilin, J.-P. Touré, J. Le-Moigne, and P. Herrmann, CGGVeritas

TOM 1.6 (3989-3993)

Multiparameter controlled automatically picking and variable smoothing for tomography with fast 3D beam prestack depth migration

J. Jiao*, S. Lin, C. Zhou, S. Brandsberg-Dahl, K. Schleicher, and H. Tieman, PGS

TOM 1.7 (3994-3998)

Seismic waveform tomography with multicomponent data at a groundwater contamination site

G. Chambers*, A. Levander, C. A. Zelt, and B. Dugan, Rice U

TOM 1.8 (3999-4003)

Migration velocity analysis using wave packets – Geometric approach

Anton Duchkov* and Maarten de Hoop, Purdue U; Fredrik Andersson, Purdue U/Lund U

Traveltime Tomography

TOM 2.1 (4004-4008)

Three-dimensional traveltime tomography via LSQR with regularization

Donghong Pei, Halliburton

TOM 2.2 (4009-4013)

Reflection attenuation tomography: Comparison between two neighboring ray approaches

Hongmei Cao*, U of Houston; Hua-wei Zhou, Texas Tech U; Fred Hilterman, Geokinetics

TOM 2.3 (4014-4018)

3D tomographic Q inversion for compensating frequency dependent attenuation and dispersion

Kefeng Xin and Barry Hung, CGGVeritas

TOM 2.4 (4019-4023)

DynaSIRT: A robust dynamic imaging method applied to CO₂ injection monitoring

Eduardo Santos, IFBA; Jerry Harris, Stanford U

TOM 2.5 (4024-4028)

2D tomographic velocity model building in tilted transversely isotropic media

Fan Jiang*, Hua-wei Zhou, Zhi-hui Zou, and Hui Liu, Texas Tech U

TOM 2.6 (4029-4033)

Building TTI depth models using anisotropic tomography with well information

A. Bakulin*, M. Woodward, D. Nichols, K. Osypov, and O. Zdraveva, WesternGeco/Schlumberger

TOM 2.7 (4034-4038)

First arrival tomography using depth-varying velocity gradients

H. Liu*, H-W Zhou, F. Jiang, and Z. Zou, Texas Tech U

TOM 2.8 (4039-4043)

Structurally coherent wide azimuth residual moveout surfaces

Risto Siliqi* and Abdelkrim Talaalout, CGGVeritas

Theory and Applications

TOM P1.1 (4044-4048)

Fat ray tomography with optimal relaxation factor

Jianzhong Zhang*, Xiamen U; Bo Zhao, BGP; Hua-wei Zhou, Texas Tech U

TOM P1.2 (4049-4053)

How serious is the nonlinear effect on traveltimes predicted by sensitivity kernels

Wenjun Xu, U of California/Tonji U; Xiao-Bi Xie, U of California

TOM P1.3 (4054-4058)

NIP wave tomography for PS-converted waves

Claudia Vanelle and Dirk Gajewski, U of Hamburg

TOM P1.4 (4059-4063)

Resolution of small velocity anomalies by wide azimuth reflection data tomography

A. Bartana*, Paradigm; D. Kosloff, Tel-Aviv U/Paradigm; P. Riste, StatoilHydro; Y. Vilenchik, Paradigm

Interferometry, Hydraulic Fracture, Processing

VSP 1.1 (4080-4084)

3C-3D VSP vector wavefield separation with constrained inversion

Wenbo Sun*, Sam Zandong Sun, and Haijun Bai, China U of Petroleum

VSP 1.2 (4085-4089)

Imaging a salt dome flank by directional redatuming of a field 3D VSP survey

R. Lu*, ExxonMobil; M. Willis, ConocoPhillips; A. Mateeva and J. Lopez, Shell; and Nafi Toksöz, MIT

VSP 1.3 (4090-4094)

Resolution function for controlled-source seismic interferometry: A data-driven diagnosis

Joost van der Neut* and Jan Thorbecke, U of Technology

VSP 1.4 (4095-4099)

Elastic-wavefield interferometry using P-wave source VSPs, Wamsutter Field, Wyoming

J. E. Gaiser, ION-GXT; R. Ramkhalawan, BP; I. Vasconcelos and J. Faragher, ION-GXT

TOM P1.5 (4064-4068)

Double-difference tomography of microseismic data for monitoring carbon sequestration

R. Zhou*, L. Huang, J. Rutledge, and H. Denli, Los Alamos Nat'l Lab; H. Zhang, MIT

TOM P1.6 (4069-4074)

Tomography techniques and a near-surface model in the Andes

Jorge Monsegny* and Saul Guevara, Ecopetrol

TOM P1.7 (4075-4079)

Dependence of first-arrival tomography on a start model

Kongyun Ding*, Yuzhu Liu, and Liangguo Dong, Tongji U

VSP 1.5 (4100-4104)

Model-based relative bearing estimation for a downhole multi-component sensor array

Philip Armstrong, Schlumberger

VSP 1.6 (4105-4109)

Anisotropic parameter estimation based on 3D VSP and full azimuth seismic data

Sun Xiang-e*, Ling Yun, Gao Jun, Sun Desheng, and Lin Jixiang, BGP, CNPC

VSP 1.7 (4110-4114)

Fracture quality images from 4D VSP and microseismic data at Jonah Field, WY

M. E. Willis, K. M. Willis, and D. R. Burns, MIT; J. Shemeta, Pinnacle; N. J. House, EnCana

VSP 1.8 (4115-4119)

Characterizing hydraulic fractures using slow waves in the fracture and tube waves in the borehole

A. Derov and G. Maximov*, Moscow Engineering Physics Inst.; M. Lazarkov and B. Kashtan, St Petersburg State U; A. Bakulin, Shell

Imaging

VSP 2.1 (4120-4124)

Nonconverted shear-wave VSP imaging of tight gas sands in Rulison Field, Colorado

Prajnayoti Mazumdar* and Thomas Davis, Colorado School of Mines

VSP 2.2 (4125-4128)

3D depth imaging of surface seismic using VSP measured Green's function

Satish Sinha*, Brian Hornby, and Rosemarie Ramkhelawan, BP

VSP 2.3 (4129-4133)

3D salt-flank imaging with transmitted arrival VSP data

Mark Roberts*, Brian Hornby, and Francis Rollins, BP

VSP 2.4 (4134-4138)

Wave equation vector migration for subsalt VSP imaging and interpretation

Denis Kiyashchenko, Wim Mulder, and Jorge Lopez, Shell

Inversion, Anisotropy, Processing

VSP P1.1 (4159-4163)

Acquiring S-wave velocity using VSP converted wave of P-wave source

W. Geng*, A. Hou, W. Zhang, and N. Lei, BGP

VSP P1.2 (4164-4168)

Multiple migration of VSP data for velocity analysis

D. Nasyrov*, St Petersburg State U; D. Kiyashchenko, Shell; Y. Kiselev, B. Kashtan, and V. Troyan, St Petersburg State U

VSP P1.3 (4169-4173)

Anisotropic parameter calculation by walkaway VSP and full azimuth seismic data

Sun Xiang-e*, Ling Yun, Gao Jun, Sun Desheng, and Lin Jixiang, BGP, CNPC

VSP P1.4 (4174-4178)

Observations of azimuthal variation of attenuation anisotropy in 3D VSPs

A. V. Varghese*, M. Chapman, and X-Y. Li, British Geological Survey; Y. Wang, SinoPec Shengli Oilfield

VSP 2.5 (4139-4143)

Subsalt 3D VSP imaging at Deimos Field in the deep water Gulf of Mexico

T. Burch*, B. Hornby, H. Sugianto, and B. Nolte, BP

VSP 2.6 (4144-4148)

Suppressing VSP migration artifacts and noise by selected aperture migration and damped-least-square smoothing

Min Lou*, Dongjie Cheng, and Fran Doherty, VSFusion

VSP 2.7 (4149-4153)

3D VSP P-P and P-SV waves imaging with Kirchhoff migration on fractured and caved carbonate reservoir in Tarim Basin

W. Sun*, Z. Sun, and S. Wu, China U of Petroleum; X. Wang, BGP CNPC

VSP 2.8 (4154-4158)

3C-3D VSP PP and PSV imaging in the Lungu 38 area, Tarim Basin

Z. Ma, Z. Sun*, H. Bai, and W. Sun, China U of Petroleum

VSP P1.5 (4179-4183)

Scattering objects location with crosswell data

A. Nikitchenko*, St Petersburg State U; D. Kiyashchenko, Shell; Y. Kiselev, B. Kashtan, and V. Troyan, St Petersburg State U

VSP P1.6 (4184-4188)

Locating VSP diffracted arrivals using a microseismic approach

Mary Humphries, Avalon Sciences

VSP P1.7 (4189-4193)

Automatic first break picking in VSP data using fuzzy logic systems

Crucelis López* and Milagrosa Aldana, Simón Bolívar U

VSP P1.8 (4194-4198)

High resolution VSP in Outocumpu

X. Duo*, H. Schijns, and D. R. Schmitt, U of Alberta; S. Heinonen, U of Helsinki; I. T. Kukkonen, Geological Survey of Finland; P. Heikkinen, U of Helsinki

Interferometry: The Evolution of a Multidisciplinary Field

W 2.1 (4199-4200)

Overview of seismic interferometry

Gerard Schuster, U of Utah

W 2.2 (4201-4202)

Green's second theorem and the extraction of Green's functions

Evert Slob, Delft U of Technology and Colorado School of Mines; Roel Snieder, Colorado School of Mines; Kees Wapenaar, Delft U of Technology

W 2.3 (4203-4204)

Reflections on/from noise: Continuous versus event-driven ambient-noise seismic interferometry

Deyan Draganov, Delft U of Technology; Xander Campman, Shell Int'l Exploration and Production B.V.; Jan Thorbecke, Delft U of Technology; Arie Verdel, Shell Int'l Exploration and Production B.V.; Kees Wapenaar, Delft U of Technology

W 2.4 (4205-4206)

Remote sensing with ambient noise

Peter Gerstoft and Martin Siderius, U of California San Diego and Portland State U

Interferometry: the Evolution of a Multidisciplinary Field (continued)

W 2.9 (4215-4216)

Interferometric imaging by cross coherence

Norimitsu Nakata*, Toshifumi Matsuoka, and Takeshi Tsuji, Kyoto U; Roel Snieder, Colorado School of Mines

W2.10 (4217-4218)

Estimation of lithospheric-scale velocity models using bodywave seismic interferometry

Elmer Ruigrok, Deyan Draganov, and Kees Wapenaar, Delft U of Technology; Xander Campman, Shell Int'l E&P

W2.11 (4219-4222)

Seismic interferometry by crosscorrelation and by multidimensional deconvolution using ambient seismic noise

Jan Thorbecke, Elmer Ruigrok, Deyan Draganov, Joost v.d. Neut, Jürg Hunziker and Kees Wapenaar, Delft U of Technology

W 2.5 (4207-4208)

A new look at scattered noise attenuation: Interferometric ground-roll removal

David Halliday, Schlumberger; Andrew Curtis, U of Edinburgh, Peter Vermeer, Claudio Strobbia, and Anna Glushchenko, WesternGeco

W 2.6 (4209-4210)

Electromagnetic interferometry by multidimensional deconvolution: Acquisition aspects

J. Hunziker, Delft U of Technology; Y. Fan, Colorado School of Mines; E. Slob and K. Wapenaar, Delft U of Technology; R. Snieder, Colorado School of Mines

W 2.7 (4211-4212)

Interferometric velocity analysis using physical and nonphysical energy

Simon J. King, Andrew Curtis, and Travis Poole, The U of Edinburgh, Grant Institute

W 2.8 (4213-4214)

Virtual source method applied to horizontal well and crosswell geometries

K. Mehta, P. Jorgensen, D. Kiyashchenko, J. Ferrandis and J. Lopez, Shell

W2.12 (4223-4224)

Ambient seismic noise interferometry for exploration and surveillance

Arie Verdel and Xander Campman, Shell Int'l Exploration and Production; Deyan Draganov and Kees Wapenaar, TUDelft

W2.13 (4225-4226)

Comparison of interferometry and reverse time migration as approaches for VSP imaging of steep-dip boundaries

Jianhua Yu and Brian Hornby, BP America Inc

The Best of the D&P Forum: Reservoir Characterization and Monitoring in Carbonates

W 5.1 (4227-4232)

Microfacies approach to reservoir-related outcrop analogy studies of Wadi Waqb Member

Maaruf Hussain* and Khalid Ramadan, King Fahd U of Petroleum and Minerals

W 5.2 (4233-4237)

A study of seismic velocities and differential pressure dependence in Middle East carbonate reservoir

Ahmed Hassan* and Sandra Vega, The Petroleum Institute

Are Recent Advances in Multicomponent Technology Meeting Industry Challenges and Adding Value?

W 9.1 (4243-4248)

The measure of full motion: Multicomponent seismic exploration and its value

Robert R. Stewart*, Allied Geophysical Lab, U of Houston

W 9.2 (4249-4253)

Technology and economy of ocean bottom nodes on the first anniversary of the first 5-C crew

Shuki Ronen*, Eivind Berg, Marcos Gallotti, Bjorn Olofsson, Claude Vuillermoz and Geir Woje, Seabird Exploration

W 9.3 (4254-4257)

Converted-wave survey design

Mark A. Meier*, ExxonMobil Upstream Research Co

W 9.4 (4258-4260)

Data integrity and data efficiency measures for multicomponent imaging

Gregg Hofland*, ION Geophysical Inc; Marty Williams, East Resources Inc

W 5.3 (4238-4242)

A study of permeability and velocity anisotropy in carbonates

Moutaz Saleh* and Sandra Vega, The Petroleum Institute; Manika Prasad and Ravi Sharma, Colorado School of Mines

W 9.5 (4261-4265)

An applications-oriented database of interpretations of seismic P- and S-wave data

Robert H. Tatham, U of Texas-Austin

W 9.6 (4266-4270)

Converted-wave imaging challenges

Rodney Johnston, BP North America Gas

W 9.7 (4271-4275)

Delineation of a diagenetic trap using P-wave and converted-wave seismic data in the Miocene

Robert Kidney*, Robert Sterling, and Anne Grau, EOGResources; John Arestad, ExplorTech

W 9.8 (4276-4279)

Reducing risks and increasing production with multicomponent technology

John Tinnin*, Peter Stewart, and James Hallin, ION Geophysical/GX Technology

Are Recent Advances in Multicomponent Technology Meeting Industry Challenges and Adding Value? (continued)

W 9.9 (4280-4281)

Estimation of properties of shallow sediments from multicomponent ocean bottom seismometer data

Mrinal K. Sen, U of Texas at Austin

W 9.10 (4282-4283)

Use of multicomponent seismic data for oil-water discrimination in fractured reservoirs

Zhongping Qian, Mark Chapman, and Xiang-Yang Li*, Edinburgh Anisotropy Project, British Geological Survey

W 9.11 (4284-4288)

Amplitude effects associated with shear-wave splitting

Bruno Gratacos*, Richard Bale, and Pierre-Yves Granger, CGGVeritas

W 9.12 (4289-4293)

Near-surface S-wave velocity estimation from P-wave polarization analysis

Pascal Edme* and Ed Kragh, Schlumberger Cambridge Research

Mining the Earth for Heat and Power: A Soup-to-Nuts Overview of Geothermal

W 12.1 (4315-4316)

Introduction and geothermal overview

John K. Prentice, TriplePoint Physics LLC

W 12.2 (4317-4322)

Hot rock play ingredients, characteristics, and potential – An Australian perspective

B. A. Goldstein*, A. J. Hill, and A. Long, Petroleum & Geothermal Group; A. R. Budd and B. Ayling, Onshore Energy & Minerals Division, Geoscience Australia; M. Malavazos, Petroleum & Geothermal Group

W 12.3 (4323-4324)

Geothermal in the oilfield: Using hot produced water for power generation

Thomas C. Anderson*, RMOTC

W 9.13 (4294-4298)

3D elastic wave mode separation for TTI media

Jia Yan and Paul Sava*, Center for Wave Phenomena, Colorado School of Mines

W 9.14 (4299-4303)

Advancements in processing and imaging of downhole multi-component data

Kurang Mehta, Denis Kiyashchenko, Patsy Jorgensen, Jorge Lopez, Javier Ferrandis, and Alben Mateeva, Shell Int'l E & P, Inc

W 9.15 (4304-4309)

Attribute-driven multicomponent registration

Dean Witte*, Murray Roth, and Jeff Emanuel, Transform Software & Services

W 9.16 (4310-4312)

Preconditioning angle stack input for joint PP-PS inversion

Tim Jenkinson*, Rishi Bansal, Vijay Khare, Mike Matheney, and Alex Martinez

W 12.4 (4325-4329)

A conceptual model approach to the geophysical exploration of permeable geothermal reservoirs that considers context and uncertainty

William Cumming*, Cumming Geoscience

W 12.5 (4330-4331)

Enhanced geothermal systems well construction technology evaluation

Yarom Polsky, Douglas Blankenship* and A. J. (Chip) Mansure, Sandia National Lab; Robert J. Swanson and Louis E. Capuano Jr., ThermaSource, Inc

W 12.6 (4332-4337)

Geothermal exploration using MT and gravity techniques at Szentlorinc area in Hungary

G. Yu* and K. Strack, KMS Technologies; H. Tulinius and I. M. Porbergdóttir, Mannvit; Z. Z. Hu and Z. X. He, BGP

Author Index