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Michal Kaliszan (Technische Universität Berlin, Germany); Emmanuel Pollakis (Fraunhofer Heinrich Hertz Institute, Germany); Slawomir Stańczak (Fraunhofer Heinrich Hertz Institute, Germany)

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Rémi Cogranne (University of Technology of Troyes & Educational, France); Cathel Zitzmann (UTT, France); Lionel Fillatre (Université de Technologie de Troyes, France); Florent Retraint (UTT, France); Igor Nikiforov (Université de Technologie de Troyes, UTT/STMR/LM2S & UMR CNRS 6279, France); Philippe Cornu (ICD - LM2S - UTT UMR STMR CNRS, France)
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A New Method for Variable Elimination in Systems of Inequations

Farhad Shirani Chaharsooghi (Sharif University of Technology Iran, Iran);
Mohammad Javad Emadi (Sharif University of Technology, Iran); Mahdi
Zamanighomi (Sharif University of Technology Iran, Iran); Mohammad Reza
Aref (Sharif University of Tech., Iran)
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Shannon Meets Blackwell and Le Cam: Channels, Codes, and Statistical Experiments

Maxim Raginsky (Duke University, USA)
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Me-07: Distributed Storage I

Permutation Code: Optimal Exact-Repair of a Single Failed Node in MDS Code Based Distributed Storage Systems

Viveck R Cadambe (University of California, Irvine, USA); Cheng Huang
(Microsoft Research, USA); Jin Li (Microsoft Research, USA)
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Distributed Storage Codes Through Hadamard Designs

Dimitris Papailiopoulos (University of Southern California, USA); Alex Dimakis
(University of Southern California, USA)
pp. 1230-1234

Enabling Node Repair in Any Erasure Code for Distributed Storage

K. V. Rashmi (Indian Institute of Science, India); Nihar B Shah (Indian
Institute of Science, India); P Vijay Kumar (Indian Institute of Science &
University of Southern California, India)
pp. 1235-1239

MDS Array Codes with Optimal Rebuilding

Itzhak Tamo (Electrical Engineering Department, California Institute of
Technology & Electrical and Computer Engineering, Ben-Gurion University,
USA); Zhiying Wang (California Institute of Technology, USA); Jehoshua
Bruck (California Institute of Technology, USA)
pp. 1240-1244

G-07: Network Games and Dynamics

Secrecy Games on the One-Sided Interference Channel

Jianwei Xie (University of Maryland, USA); Sennur Ulukus (University of
Maryland, USA)
pp. 1245-1249

A Potential Function View of Information Theoretic Interference Games

Suvarup Saha (Northwestern University, USA); Randall Berry (Northwestern
University, USA)

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Information Theoretic Analysis of Side Channel Information Leakage in FCFS Schedulers

Xun Gong (University of Illinois at Urbana-Champaign, USA); Negar Kiyavash (University of Illinois at Urbana-Champaign, USA); Parv Venkatasubramaniam (Lehigh University, USA)

pp. 1255-1259

A Non-Linear Model of Limit Order Book Dynamics

Nikita Vvedenskaya (IITP, Russia); Yuri Suhov (University of Cambridge & Universidade de Sao Paulo, United Kingdom); Vladimir Belitsky (University of Sao Paulo, Brazil)

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AC-08: LDPC Codes VI

Efficient Methods for Bounding the Fractional Distance of LDPC Codes and Obtaining Fundamental Polytopes of Nonbinary and Generalized Codes

David Burshtein (Tel Aviv University, Israel); Idan Goldenberg (Tel Aviv University, Israel)

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On Concentration of Measures for LDPC Code Ensembles

Igal Sason (Technion - Israel Institute of Technology, Israel); Ronen Eshel (Technion - Israel Institute of Technology, Israel)

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List Decoding of Product Codes by the MinSum Algorithm

Alexander Barg (University of Maryland, USA); Gilles Zémor (Université Bordeaux 1, France)

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The Approximate Maximum-Likelihood Certificate

Idan Goldenberg (Tel Aviv University, Israel); David Burshtein (Tel Aviv University, Israel)

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On Error Correction Capability of Bit-Flipping Algorithm for LDPC Codes

Wen-Yao Chen (National Tsing Hua University, Taiwan); Chung-Chin Lu (National Tsing Hua University, Taiwan)

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W-08: CSI in Wireless Networks II

Tradeoff Analysis of Delay-Power-CSI Quality of Generalized Dynamic BackPressure Algorithm for Energy Efficient OFDM Systems

Vincent Lau (The university of science and Technology, Hong Kong); Chung Ha Koh (Hong Kong University of Science and Technology, Hong Kong)

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Vector Broadcast Channels: Optimality of Threshold Feedback Policies

Tharaka Samarasinghe (University of Melbourne, Australia); Hazer Inaltekin (The University of Melbourne, Australia); Jamie Evans (University of Melbourne, Australia)

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Space-Time Linear Precoding and Iterative LMMSE Detection for MIMO Channels Without CSIT

Xiaojun Yuan (Chinese University of Hong Kong, Hong Kong); Li Ping (City University of Hong Kong, Hong Kong)

pp. 1297-1301

Performance of Hybrid Codebook Techniques for MISO Downlink Channels with Limited Feedback

Sungkyu Jung (Seoul National University, Korea); Kyeongjun Ko (Seoul National University, Korea); Jungwoo Lee (Seoul National University, Korea)

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Asymptotic Analysis of Downlink Multi-Cell Systems with Partial CSIT

Subhash Lakshminarayana (SUPELEC, France); Mérouane Debbah (Supelec, France); Mohamad Assaad (Supelec, France)

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S-08: Data Compression III

Combinatorial Message Sharing for a Refined Multiple Descriptions Achievable Region

Kumar Viswanatha (UCSB, USA); Emrah Akyol (UCSB, USA); Kenneth Rose (University of California, Santa Barbara, USA)

pp. 1312-1316

Analysis of a Block Arithmetic Coding: Discrete Divide and Conquer Recurrence

Michael Drmota (Institute for Discrete Mathematics and Geometry, Austria); Wojciech Szpankowski (Purdue University, USA)

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Codes for Unordered Sets of Words

Yuriy A. Reznik (QUALCOMM Incorporated, USA)

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Coding Theorems on the Worst-Case Redundancy of Fixed-Length Coding for a General Source

Hiroki Koga (University of Tsukuba, Japan); Mitsuharu Arimura (Shonan Institute of Technology, Japan); Ken-ichi Iwata (University of Fukui, Japan)

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Training Over Sparse Multipath Channels in the Low SNR Regime

Elchanan Zwecher (The Hebrew University, Israel); Dana Porat (The Hebrew University, Israel)

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N-08: Relay Network Capacities

On the Capacity of 2-User 1-Hop Relay Erasure Networks — the Union of Feedback, Scheduling, Opportunistic Routing, and Network Coding

Wei-Cheng Kuo (Purdue University, USA); Chih-Chun Wang (Purdue University, USA)
pp. 1337-1341

On Computing the Capacity of Relay Networks in Polynomial Time

Farzad Parvaresh (Hewlett-Packard, USA); Raul Etkin (Hewlett-Packard Laboratories, USA)
pp. 1342-1346

On the Capacity of the Noncausal Relay Channel

Lele Wang (UCSD, USA); Mohammad Naghshvar (University of California, San Diego, USA)
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On the Transmission of Correlated Sources Over Relay Channels

Sadaf Salehkalaibar (Sharif University of Technology, Iran); Mohammad Reza Aref (Sharif University of Tech., Iran)
pp. 1352-1356

Hash-and-Forward Relaying for Two-Way Relay Channel

Erhan Yilmaz (Institute Eurecom, France); Raymond Knopp (Institut Eurecom, France)
pp. 1357-1361

M-08: Interference Channels: Degrees of Freedom and Throughput

Degrees of Freedom of the Interference Channel: a General Formula

Yihong Wu (Princeton University, USA); Shlomo (Shitz) Shamai (The Technion, Israel); Sergio Verdú (Princeton University, USA)
pp. 1362-1366

On the Degrees of Freedom of Rank Deficient Interference Channels

Sung Ho Chae (KAIST, Korea); Sae-Young Chung (KAIST, Korea)
pp. 1367-1371

(n,K)-user Interference Channels: Degrees of Freedom

Ali Tajer (Princeton University, USA); Xiaodong Wang (Columbia University, USA)
pp. 1372-1376

Degrees of Freedom of Cooperative Interference Networks

Sreekanth Annapureddy (UIUC, USA); Aly El Gamal (University of Illinois at Urbana-Champaign, USA); Venugopal Veeravalli (University of Illinois at Urbana-Champaign, USA)
pp. 1377-1381

On the Sum Capacity of K-user Cascade Gaussian Z-Interference Channel

Yuanpeng Liu (Polytechnic Institute of New York University, USA); Elza Erkip (Polytechnic Institute of NYU, USA)
pp. 1382-1386

C-08: Coding Theory I

Average Error Exponent of Undetected Error Probability of Binary Matrix Ensembles

Kazushi Mimura (Hiroshima city university, Japan); Tadashi Wadayama (Nagoya Institute of Technology, Japan); Toshiyuki Tanaka (Kyoto University, Japan); Yoshiyuki Kabashima (Tokyo Institute of Technology, Japan)
pp. 1387-1391

Beating the Gilbert-Varshamov Bound for Online Channels

Ishay Haviv (Tel Aviv University, Israel); Michael Langberg (Open University of Israel, Israel)
pp. 1392-1396

Upper and Lower Bounds on the Minimum Distance of Expander Codes

Alexey A. Frolov (IITP RAS, Russia); Victor V. Zyablov (Institute for Information Transmission Problems (IITP) RAS, Russia)
pp. 1397-1401

Is Unequal Error Protection Useful?

Ozgun Bursalioglu (University of Southern California, USA); Giuseppe Caire (University of Southern California, USA)
pp. 1402-1406

The Dispersion of Infinite Constellations

Amir Ingber (Tel Aviv University, Israel); Ram Zamir (Tel Aviv University, Israel); Meir Feder (Tel-Aviv University, Israel)
pp. 1407-1411

E-08: Algorithms for Compressive Sensing

Compressive Identification of Linear Operators

Reinhard Heckel (ETH Zürich, Switzerland); Helmut Bölcskei (ETH Zurich, Switzerland)
pp. 1412-1416

MultiPass Lasso Algorithms for Sparse Signal Recovery

Yuzhe Jin (UCSD, USA); Bhaskar Rao (University of California, San Diego, USA)
pp. 1417-1421

Sparse Signal Recovery From Sparsely Corrupted Measurements

Christoph Studer (Rice University, USA); Patrick Kuppinger (ETH Zurich, Switzerland); Graeme Pope (ETH Zurich, Switzerland); Helmut Bölcskei (ETH Zurich, Switzerland)
pp. 1422-1426

Summary Based Structures with Improved Sublinear Recovery for Compressed Sensing

Amin Khajehnejad (Caltech, USA); Juhwan Yoo (California Institute of Technology, USA); Animashree Anandkumar (University of California Irvine, USA); Babak Hassibi (California Institute of Technology, USA)
pp. 1427-1431

Generating Functional Analysis of Iterative Algorithms for Compressed Sensing

Kazushi Mimura (Hiroshima city university, Japan)
pp. 1432-1436

Me-08: Distributed Storage II

Optimal-Cost Repair in Multi-Hop Distributed Storage Systems

Majid Gerami (KTH (The Royal Institute of Technology), Sweden); Ming Xiao (Royal Institute of Technology, Sweden); Mikael Skoglund (Royal Institute of Technology, Sweden)
pp. 1437-1441

Exact Minimum-Repair-Bandwidth Cooperative Regenerating Codes for Distributed Storage Systems

Kenneth W. Shum (Institute of Network Coding, Hong Kong); Yuchong Hu (Institute of Network Coding, Hong Kong)
pp. 1442-1446

Distributed Storage Allocations for Optimal Delay

Derek Leong (California Institute of Technology, USA); Alex Dimakis (University of Southern California, USA); Tracey Ho (California Institute of Technology, USA)
pp. 1447-1451

Securing Dynamic Distributed Storage Systems from Malicious Nodes

Sameer Pawar (University of California, Berkeley, USA); Salim El Rouayheb (University of California, Berkeley, USA); Kannan Ramchandran (University of California at Berkeley, USA)
pp. 1452-1456

Update Efficient Codes for Distributed Storage

Ankit Singh Rawat (The University of Texas at Austin, USA); Sriram Vishwanath (University of Texas at Austin, USA); Abhishek Bhowmick (The University of Texas at Austin, USA); Emina Soljanin (Bell Labs, Alcatel - Lucent, USA)
pp. 1457-1461

G-08: Special Session on Information Theory and Neuroscience

Special Session on Information Theory and Neuroscience At ISIT 2011

Todd P Coleman (University of California, San Diego, USA); Aurel A. Lazar (Columbia University, USA)

pp. 1462-1463

Wednesday, August 3

P-03: Wojciech Szpankowski, "Algorithms, Combinatorics, Information, and Beyond" Plenary Lecture

RR: Recent Results Poster Session

AC-09: LDPC Codes VII

Bilayer LDPC Convolutional Codes for Half-Duplex Relay Channels

Zhongwei Si (Royal Institute of Technology, Sweden); Ragnar Thobaben (Royal Institute of Technology, KTH, Sweden); Mikael Skoglund (Royal Institute of Technology, Sweden)

pp. 1464-1468

Block-Markov LDPC Scheme for Half- and Full-Duplex Erasure Relay Channel

Marina Ivashkina (ENSEA/UCP/CNRS, France); Iryna Andriyanova (ENSEA/UCP/CNRS, France); Pablo Piantanida (SUPELEC, France); Charly Poulliat (University Cergy-Pontoise, France)

pp. 1469-1473

Spatially Coupled LDPC Codes for Decode-and-Forward in Erasure Relay Channel

Hironori Uchikawa (Tokyo Institute of Technology, Japan); Kenta Kasai (Tokyo Institute of Technology, Japan); Kohichi Sakaniwa (Tokyo Institute of Technology, Japan)

pp. 1474-1478

Soft Decode-and-Forward Using LDPC Coding in Half-Duplex Relay Channels

Marwan Hadri Azmi (University of New South Wales, Australia); Jun Li (University of New South Wales, Australia); Jinhong Yuan (University of New South Wales, Australia); Robert Malaney (University of New South Wales, Australia)

pp. 1479-1483

W-09: Detection with Multiple Users or Interference

Partial Group Decoding for Interference Channels

Ali Tajer (Princeton University, USA); H. Vincent Poor (Princeton University, USA); Xiaodong Wang (Columbia University, USA)
pp. 1484-1488

Improvement of BP-Based CDMA Multiuser Detection by Spatial Coupling

Keigo Takeuchi (The University of Electro-Communications, Japan); Toshiyuki Tanaka (Kyoto University, Japan); Tsutomu Kawabata (University of Electro-Communications, Japan)
pp. 1489-1493

On the Sum-Capacity with Successive Decoding in Interference Channels

Yue Zhao (Princeton University, USA); Chee Wei Tan (City University of Hong Kong, Hong Kong); Amir S. Avestimehr (Cornell University, USA); Suhas Diggavi (University of California Los Angeles, USA); Gregory Pottie (University of California at Los Angeles, USA)
pp. 1494-1498

The Gaussian Multiple Access Diamond Channel

Wei Kang (Southeast University, P.R. China); Nan Liu (Southeast University, P.R. China)
pp. 1499-1503

S-09: Universal Compression

Results on the Redundancy of Universal Compression for Finite-Length Sequences

Ahmad Beirami (Georgia Institute of Technology, USA); Faramarz Fekri (Georgia Institute of Technology, USA)
pp. 1504-1508

Limiting Distribution of Lempel Ziv'78 Redundancy

Philippe Jacquet (INRIA, France); Wojciech Szpankowski (Purdue University, USA)
pp. 1509-1513

On Instability of the Ergodic Limit Theorems with Respect to Small Violations of Algorithmic Randomness

Vladimir Vyugin (IITP RAS, Russia)
pp. 1514-1518

The Universality and Linearity of Compression by Substring

Danny Dubé (Université Laval, Canada); Hidetoshi Yokoo (Gunma University, Japan)
pp. 1519-1523

N-09: Relay Channels

On the Asymptotic Error Probability of Composite Relay Channels

Arash Behboodi (Supélec, France); Pablo Piantanida (SUPELEC, France)
pp. 1524-1528

Capacity of Less Noisy Relay Channels

Si-Hyeon Lee (KAIST, Korea); Sae-Young Chung (KAIST, Korea)
pp. 1529-1533

On the Maximum Achievable Rates in the Decode-Forward Diamond Channel

Mahdi Zamani (University of Waterloo, Canada); Amir K. Khandani (University of Waterloo, Canada)
pp. 1534-1538

Interference Mitigation in Femto-Macro Coexistence with Two-Way Relay Channel

Kiran T Gowda (EURECOM, France); David Gesbert (Eurecom, France); Erhan Yilmaz (Institute Eurecom, France)
pp. 1539-1543

M-09: Broadcast channels

The Capacity Region for Two Classes of Product Broadcast Channels

Yanlin Geng (Chinese University of Hong Kong, Hong Kong); Amin Aminzadeh Gohari (Sharif University of Technology, Iran); Chandra Nair (Chinese University of Hong Kong, Hong Kong); Yuanming Yu (Chinese University of Hong Kong, Hong Kong)
pp. 1544-1548

Capacity-Achieving Encoding for the Broadcast Erasure Channel with Multiple Users

Marios Gatzianas (Center for Research and Technology Hellas, Telematics and Informatics Institute, Greece); Leonidas Georgiadis (Aristotle University of Thessaloniki, Greece); Leandros Tassioulas (University of Thessaly, Greece)
pp. 1549-1553

Nested Linear Codes Achieve Marton's Inner Bound for General Broadcast Channels

Arun Padakandla (University of Michigan, USA); Sandeep Pradhan (University Michigan, USA)
pp. 1554-1558

Capacity Region of a Class of Deterministic K-Receiver Broadcast Channels with Degraded Message Sets

Hon Fah Chong (Institute for Infocomm Research, Singapore); Ying-Chang Liang (Institute for Infocomm Research, Singapore)
pp. 1559-1563

C-09: DNA Codes

DNA Codes for Generalized Stem Similarity

Arkadii Dyachkov (Moscow State University, Russia); Julia Volkova (Moscow State University, Russia); Nikita Polyanskii (Moscow State University, Russia)
pp. 1564-1568

New Construction of DNA Codes with Constant-GC Contents from Binary Sequences with Ideal Autocorrelation

Young-Sik Kim (Chosun University, Korea); Sang-Hyo Kim (Sungkyunkwan University, Korea)
pp. 1569-1573

Outfix-free and Intercode Constraints for DNA Sequences

Hiroshi Kamabe (Gifu University, Japan)
pp. 1574-1578

Codebook and Marker Sequence Design for Synchronization-Correcting Codes

Victor Buttigieg (University of Malta, Malta); Johann A. Briffa (University of Surrey, United Kingdom)
pp. 1579-1583

E-09: Estimation Theory

Localization from Incomplete Noisy Distance Measurements

Adel Javanmard (Stanford University, USA); Andrea Montanari (Stanford University, USA)
pp. 1584-1588

Universal Manifold Embedding for Geometric Deformations Estimation

Rami Hagege (Ben Gurion University, Israel); Joseph M. Francos (Ben Gurion University, Israel)
pp. 1589-1593

Estimating a Gaussian Random Walk First-Passage Time from Noisy or Delayed Observations

Marat V Burnashev (Institute for Information Transmission Problems, Russian Academy of Sciences, Russia); Aslan Tchamkerten (Telecom ParisTech, France)
pp. 1594-1597

Model-Fitting in the Presence of Outliers

Jayakrishnan Unnikrishnan (EPFL, Switzerland)
pp. 1598-1602

Me-09: Cryptography I

Almost-Perfect Secret Sharing

Tarik Kaced (Université de Provence, France)
pp. 1603-1607

Toward Optimal Trade-Off Between Identification and Secrecy-Key Binding Using Linear Codes

Po-Hsiang Lai (Washington University in Saint Louis, USA); Joseph A. O'Sullivan (Washington University in St. Louis, USA)
pp. 1608-1612

Error-Free Perfect-Secrecy Systems

Siu-Wai Ho (University of South Australia, Australia); Terence H. Chan (University of South Australia, Australia); Chinthani Uduwerelle (University of South Australia, Australia)
pp. 1613-1617

G-09: Wireless Networks

The Capacity Per Unit Energy of Large Wireless Networks

Sudeep Kamath (U.C. Berkeley, USA); Urs Niesen (Bell Labs, Alcatel-Lucent, USA); Piyush Gupta (Bell Labs, Alcatel-Lucent, USA)
pp. 1618-1622

Cooperative Strategies for Interference-Limited Wireless Networks

Andrés Altieri (University of Buenos Aires, Argentina); Leonardo Rey Vega (University of Buenos Aires, Facultad de Ingeniería, Argentina); Cecilia G. Galarza (University of Buenos Aires, Argentina); Pablo Piantanida (SUPELEC, France)
pp. 1623-1627

On the Geometry of Wireless Network Multicast in 2-D

Mohit Thakur (Technische Universität München, Germany); Nadia Fawaz (MIT, USA); Muriel Médard (MIT, USA)
pp. 1628-1632

Local Phy + Global Flow: A Layering Principle for Wireless Networks

Sreeram Kannan (University of Illinois, Urbana-Champaign, USA); Adnan Raja (University of Illinois, Urbana-Champaign, USA); Pramod Viswanath (University of Illinois, Urbana-Champaign, USA)
pp. 1633-1637

Thursday, August 4

P-04: Shlomo Shamai (Shitz), Shannon Lecture, "From Constrained Signaling to Network Interference Alignment via an Information-Estimation Perspective"

AC-10: LDPC Codes VIII

Adaptive Cut Generation for Improved Linear Programming Decoding of Binary Linear Codes

Xiaojie Zhang (University of California, San Diego, USA); Paul H. Siegel (University of California, San Diego, USA)
pp. 1638-1642

Pseudocodewords of Linear Programming Decoding of 3-Dimensional Turbo Codes

Eirik Rosnes (University of Bergen, Norway); Michael Helmling (University of Kaiserslautern, Germany); Alexandre Graell i Amat (Chalmers University of Technology, Sweden)
pp. 1643-1647

Polytope of Correct (Linear Programming) Decoding and Low-Weight Pseudocodewords

Michael Chertkov (Los Alamos National Laboratory, USA); Mikhail Stepanov (University of Arizona, USA)
pp. 1648-1652

Trellis-Based Check Node Processing for Low-Complexity Nonbinary LP Decoding

Mayur Punekar (University College Dublin, Ireland); Mark F. Flanagan (University College Dublin, Ireland)
pp. 1653-1657

W-10: Communication Techniques

Robust Incremental Redundancy Hybrid ARQ Coding for Channels with Unknown CSI

Stojan Denic (Telecommunications Research Lab Toshiba, United Kingdom)
pp. 1658-1662

On Random CDMA with Constant Envelope

Ralf R. Müller (Norwegian University of Science and Technology, Norway)
pp. 1663-1667

Universal Decoding Over Gaussian Fading Channels - Metric Calculation and Performance Evaluation

Nir Weinberger (Tel Aviv University, Israel); Meir Feder (Tel-Aviv University, Israel)

pp. 1668-1672

Mitigating Interference with Integer-Forcing Architectures

Jiening Zhan (University of California, Berkeley, USA); Uri Erez (Tel Aviv University, Israel); Michael Gastpar (University of California, Berkeley, USA); Bobak Nazer (Boston University, USA)

pp. 1673-1677

S-10: Multiple Terminal Source Coding I

Secure Source Coding with Action-Dependent Side Information

Kittipong Kittichokechai (Royal Institute of Technology, Sweden); Tobias J. Oechtering (Royal Institute of Technology & School of Electrical Engineering, EE, Sweden); Mikael Skoglund (Royal Institute of Technology, Sweden)

pp. 1678-1682

Cascade and Triangular Source Coding with Causal Side Information

Yeow-Khiang Chia (Stanford University, USA); Tsachy Weissman (Stanford University, USA)

pp. 1683-1687

Source-Channel Coding Tradeoff in Multiple Antenna Multiple Access Channels

Ebrahim MolavianJazi (University of Notre Dame, USA); J. Nicholas Laneman (University of Notre Dame, USA)

pp. 1688-1692

Vector Gaussian Multiple Description Coding with Individual and Central Distortion Constraints

Jun Chen (McMaster University, Canada); Jia Wang (Shanghai Jiao Tong University, P.R. China)

pp. 1693-1697

N-10: Network Coding Theory

Compress-and-Forward Scheme for a Relay Network: Approximate Optimality and Connection to Algebraic Flows

Adnan Raja (University of Illinois, Urbana-Champaign, USA); Pramod Viswanath (University of Illinois, Urbana-Champaign, USA)

pp. 1698-1702

Degraded Two-Message Multicast Over Graphs

Shirin Saeedi Bidokhti (EPFL, Switzerland); Christina Fragouli (EPFL, Switzerland)

pp. 1703-1707

Common Information of Random Linear Network Coding Over a 1-Hop Broadcast Packet Erasure Channel

Chih-Chun Wang (Purdue University, USA); Jaemin Han (Purdue University, USA)
pp. 1708-1712

Multilevel Coding Schemes for Compute-and-Forward

Brett Hern (Texas A&M University, USA); Krishna Narayanan (Texas A&M University, USA)
pp. 1713-1717

M-10: MIMO/MISO Broadcast Channels

Mean-Variance Optimal Linear Precoders for Random MISO Broadcast Channels

Alon Shalev Housfater (University of Toronto, Canada); Teng Joon Lim (National University of Singapore, Singapore)
pp. 1718-1722

On Vector Perturbation Precoding for the MIMO Gaussian Broadcast Channel

Yuval Avner (Technion, Israel); Benjamin Zaidel (Technion, Israel); Shlomo (Shitz) Shamai (The Technion, Israel)
pp. 1723-1727

Block Triangularization: A New Linear Precoding Strategy for Gaussian MIMO BC

Junyoung Nam (Electronics and Telecommunication Research Institute (ETRI), Korea); Giuseppe Caire (University of Southern California, USA); Jeongseok Ha (Korea Advanced Institute of Science and Technology, Korea)
pp. 1728-1732

Broadcasting on the Grassmannian: Enhancing the Multiplexing Gain

Yang Li (University of Texas at Dallas, USA); Aria Nosratinia (University of Texas, Dallas, USA)
pp. 1733-1737

C-10: Coding Theory II

Linear Extractors for Extracting Randomness from Noisy Sources

Hongchao Zhou (California Institute of Technology, USA); Jehoshua Bruck (California Institute of Technology, USA)
pp. 1738-1742

On the Capacity of Abelian Group Codes Over Discrete Memoryless Channels

Aria Ghasemian Sahebi (University of Michigan, USA); Sandeep Pradhan (University Michigan, USA)
pp. 1743-1747

Linear Error Correcting Codes with Anytime Reliability

Ravi Teja Sukhavasi (California Institute of Technology, USA); Babak Hassibi (California Institute of Technology, USA)
pp. 1748-1752

Channels with Intermittent Errors

Arya Mazumdar (University of Maryland, College Park, USA); Alexander Barg (University of Maryland, USA)
pp. 1753-1757

E-10: Shannon Theory III

On the St. Petersburg Paradox

Thomas M. Cover (Stanford University, USA)
pp. 1758-1761

A Lattice of Gambles

Paul Cuff (Princeton University, USA); Thomas M. Cover (Stanford University, USA); Gowtham Kumar (Stanford University, USA); Lei Zhao (Stanford University, USA)
pp. 1762-1766

On the Detrimental Effect of Assuming a Linear Model for Non-Linear AWGN Channels

Jihad Fahs (American University of Beirut, Lebanon); Ibrahim Abou-Faycal (American University of Beirut, Lebanon)
pp. 1767-1771

Analysis of Fast Sparse Superposition Codes

Andrew R Barron (Yale University, USA); Antony Joseph (Yale University, USA)
pp. 1772-1776

Me-10: Cryptography II

Security Notions for Information Theoretically Secure Encryptions

Mitsugu Iwamoto (University of Electro-Communications, Japan); Kazuo Ohta (University of Electro-Communications, Japan)
pp. 1777-1781

On Unconditionally Secure Multi-Party Sampling from Scratch

Ye Wang (Boston University, USA); Prakash Ishwar (Boston University, USA)
pp. 1782-1786

Index Coding and Error Correction

Hoang Dau (Nanyang Technological University, Singapore); Vitaly Skachek (University of Illinois at Urbana-Champaign, USA); Yeow Meng Chee (Nanyang Technological University, Singapore)
pp. 1787-1791

The Average Radius of Codes: Survey and New Results

Gerard Cohen (ENST, France); Carlos Munuera (Universidad de Valladolid, Spain); Patrick Solé (Telecom Paristech, France)
pp. 1792-1795

G-10: Delay and Stability in Wireless Networks

The Stability Region of Random Multiple Access Under Stochastic Energy Harvesting

Jeongho Jeon (University of Maryland, College Park, USA); Anthony Ephremides (University of Maryland at College Park, USA)
pp. 1796-1800

On the Stability Region of Multi-Queue Multi-Server Queueing Systems with Stationary Channel Distribution

Hassan Halabian (Carleton University, Canada); Ioannis Lambadaris (Carleton University, Canada); Chung-Horng Lung (Carleton University, Canada)
pp. 1801-1805

Queueing Behavior of the Gilbert-Elliott Channel: BCH Codes and Poisson Arrivals

Fatemeh Hamidi-Sepehr (Texas A&M University, USA); Yi Cai (Texas A&M University, USA); Henry D Pfister (Texas A&M University, USA); Jean-Francois Chamberland (Texas A&M University, USA)
pp. 1806-1810

Queueing Delay - Error Probability Tradeoff for Point-to-Point Channels with Fixed Length Block Codes

Vineeth Bala Sukumaran (Indian Institute of Science, Bangalore, India); Utpal Mukherji (Indian Institute of Science, India)
pp. 1811-1815

AC-11: LDPC Codes IX

Scaling Behavior of Convolutional LDPC Ensembles Over the BEC

Pablo M. Olmos (Universidad de Sevilla, Spain); Ruediger L Urbanke (EPFL, Switzerland)
pp. 1816-1820

Dynamic Scheduling-Aided Decoding Strategies for LDPC Convolutional Codes with Rational Parity-Check Matrices

Jian-Jia Weng (National Chiao Tung University, Taiwan); Mu-Chen Wu (National Chiao Tung University, Taiwan); Chung-Hsuan Wang (National Chiao Tung University, Taiwan); Yi-Sheng Su (Chang Jung Christian University, Taiwan); Tsung Cheng Wu (I-Shou University, Taiwan)
pp. 1821-1825

Efficient Message Passing Scheduling for Terminated LDPC Convolutional Codes

Michael Lentmaier (Dresden University of Technology, Germany); Maria Mellado Prenda (Dresden University of Technology, Germany); Gerhard Fettweis (Technische Universität Dresden, Germany)
pp. 1826-1830

On the Lower Bound of the Free Distance of Partial Unit Memory Codes Based on LDPC Codes

Konstantin Kondrashov (Institute for Information Transmission Problems, Russia); Victor V. Zyablov (Institute for Information Transmission Problems (IITP) RAS, Russia)
pp. 1831-1835

W-11: Multiple Antenna Communication I

The Fundamental Limits of Infinite Constellations in MIMO Fading Channels

Yair Yona (Tel-Aviv University, Israel); Meir Feder (Tel-Aviv University, Israel)
pp. 1836-1840

Near-Capacity BICM-ID for MIMO Channels

Qiuliang Xie (Tsinghua University, P.R. China); Jian Song (Tsinghua University, P.R. China); Fang Yang (Tsinghua University, P.R. China); Yang Zhixing (Tsinghua University, P.R. China)
pp. 1841-1845

Minimizing the Complexity of Fast Sphere Decoding of STBCs

G Jithamithra (Indian Institute of Science, India); B. Sundar Rajan (Indian Institute of Science, India)
pp. 1846-1850

Performance Analysis of Coded V-BLAST with Optimum Power and Rate Allocation

Victoria Kostina (Princeton University, USA); Sergey Loyka (University of Ottawa, Canada)
pp. 1851-1855

S-11: Multiple Terminal Source Coding II

Computing a Function of Correlated Sources: A Rate Region

Milad Sefidgaran (Telecom ParisTech, France); Aslan Tchamkerten (Telecom ParisTech, France)
pp. 1856-1860

Algebraic Codes for Slepian-Wolf Code Design

Shizheng Li (Iowa State University, USA); Aditya Ramamoorthy (Iowa State University, USA)
pp. 1861-1865

Multi-Terminal Source Coding Through a Relay

Rajiv Soundararajan (University of Texas, Austin, USA); Sriram Vishwanath (University of Texas at Austin, USA)
pp. 1866-1870

Tree Interactive Encoding and Decoding: Conditionally Ψ -Mixing Sources

Jin Meng (University of Waterloo, Canada); En-hui Yang (University of Waterloo, Canada); Zhen Zhang (University of Southern California, USA)
pp. 1871-1875

N-11: Strategies for Relay Channels

Practical Code Design for Compute-and-Forward

Or Ordentlich (Tel Aviv University, Israel); Jiening Zhan (University of California, Berkeley, USA); Uri Erez (Tel Aviv University, Israel); Michael Gastpar (University of California, Berkeley, USA); Bobak Nazer (Boston University, USA)
pp. 1876-1880

Relaying Via Hybrid Coding

Young-Han Kim (UCSD, USA); Sung Hoon Lim (KAIST, Korea); Paolo Minero (University of Notre Dame, USA)
pp. 1881-1885

A Half-Duplex Cooperative Scheme with Partial Decode-Forward Relaying

Ahmad Abu Al Haija (McGill University, Canada); Mai Vu (McGill University, Canada)
pp. 1886-1890

How to Achieve Privacy in Bidirectional Relay Networks

Rafael F. Wyrembelski (Technische Universität München, Germany); Holger Boche (Technical University Munich, Germany)
pp. 1891-1895

M-11: Wireless Gaussian Broadcast Channels

LQG Control Approach to Gaussian Broadcast Channels with Feedback

Ehsan Ardestanizadeh (University of California, San Diego & ASSIA Inc., USA); Paolo Minero (University of Notre Dame, USA); Massimo Franceschetti (University of California at San Diego, USA)
pp. 1896-1900

Wireless Peer-to-Peer Mutual Broadcast Via Sparse Recovery

Lei Zhang (Northwestern University, USA); Dongning Guo (Northwestern University, USA)
pp. 1901-1905

Vector Broadcast Channels: Optimal Threshold Selection Problem

Tharaka Samarasinghe (University of Melbourne, Australia); Hazer Inaltekin (The University of Melbourne, Australia); Jamie Evans (University of Melbourne, Australia)
pp. 1906-1910

Approximately Optimal Broadcasting-Cum-Multicasting in Wireless Networks

Sreeram Kannan (University of Illinois, Urbana-Champaign, USA); Adnan Raja (University of Illinois, Urbana-Champaign, USA); Pramod Viswanath (University of Illinois, Urbana-Champaign, USA)
pp. 1911-1915

C-11: Coding Theory III

On Conjugacy Classes of Subgroups of the General Linear Group and Cyclic Orbit Codes

Felice Manganiello (Universität Zürich, Switzerland); Anna-Lena Trautmann (Universität Zürich, Switzerland); Joachim Rosenthal (University of Zurich, Switzerland)
pp. 1916-1920

High Rate Fibonacci Polynomial Codes

Mostafa Esmaeili (Isfahan University of Technology, Iran); Morteza Esmaeili (Isfahan University of Technology, Iran); T. Aaron Gulliver (University of Victoria, Canada)
pp. 1921-1924

On the Treewidth of MDS and Reed-Muller Codes

Navin Kashyap (Indian Institute of Science & Queen's University, India); Andrew Thangaraj (IIT Madras, India)
pp. 1925-1929

Network-Error Correcting Codes Using Small Fields

Krishnan Prasad (Indian Institute of Science, India); B. Sundar Rajan (Indian Institute of Science, India)
pp. 1930-1934

E-11: Information Inequalities

On Essentially Conditional Information Inequalities

Tarik Kaced (Université de Provence, France); Andrei Romashchenko (Laboratoire D'Informatique Fondamentale de Marseille, CNRS & The Institute for Information Transmission Problems of RAS, France)
pp. 1935-1939

Further Results on Geometric Properties of a Family of Relative Entropies

Ashok Kumar Moses (Indian Institute of Science, India); Rajesh Sundaresan (Indian Institute of Science, India)

pp. 1940-1944

Entropy Power Inequality for a Family of Discrete Random Variables

Naresh Sharma (Tata Institute of Fundamental Research, India); Smarajit Das (Tata Institute of Fundamental Research, India); Siddharth Muthukrishnan (Tata Institute of Fundamental Research, India)

pp. 1945-1949

Inequalities for Entropies of Sets of Subsets of Random Variables

Chao Tian (AT&T Labs - Research, USA)

pp. 1950-1954

Me-11: Cryptography III

Secret Sharing Via Noisy Broadcast Channels

Lifeng Lai (University of Arkansas, Little Rock, USA); Yingbin Liang (Syracuse University, USA); Wenliang Du (Syracuse University, USA); Shlomo (Shitz) Shamai (The Technion, Israel)

pp. 1955-1959

Group Secret Key Agreement Over State-Dependent Wireless Broadcast Channels

Mahdi Jafari Siavoshani (EPFL, Switzerland); Shaunak Mishra (University of California, Los Angeles, USA); Suhas Diggavi (University of California Los Angeles, USA); Christina Fragouli (EPFL, Switzerland)

pp. 1960-1964

Secure Multiplex Coding with a Common Message

Ryutaroh Matsumoto (Tokyo Institute of Technology, Japan); Masahito Hayashi (Tohoku University, Japan)

pp. 1965-1969

Key Agreement Over Multiple Access Channel Using Feedback Channel

Somayeh Salimi (Sharif University of Technology & Iran Telecommunication Research Center, Iran); Mahmoud Salmasizadeh (Sharif University of Technology, Iran); Mohammad Reza Aref (Sharif University of Tech., Iran)

pp. 1970-1974

G-11: Allocation in Wireless Networks

Distributed Resource Allocation for Proportional Fairness in Multi-Band Wireless Systems

I-Hong Hou (University of Illinois at Urbana-Champaign, USA); Piyush Gupta (Bell Labs, Alcatel-Lucent, USA)

pp. 1975-1979

Degrees of Freedom of Two-User MIMO Networks with Random Medium Access Control Mechanism

Vahid Pourahmadi (University of Waterloo, Canada); Abolfazl Motahari (University of Waterloo, Canada); Amir K. Khandani (University of Waterloo, Canada)
pp. 1980-1984

Distributed Scheduling for Wireless Networks

Radhika Gowaikar (Qualcomm Incorporated, USA); Christopher Lott (Qualcomm, Inc., USA); Rashid Attar (QUALCOMM Inc., USA); Donna Ghosh (Qualcomm Corp R&D, USA); Kambiz Azarian (Qualcomm Inc., USA); Amin Jafarian (The University of Texas, Austin, USA)
pp. 1985-1989

Min-Max Fair Coordinated Beamforming Via Large Systems Analysis

Randa Zakhour (University of Melbourne, Australia); Stephen Hanly (National University of Singapore, Singapore)
pp. 1990-1994

AC-12: LDPC Codes X

Two-Bit Bit Flipping Decoding of LDPC Codes

Dung Nguyen (University of Arizona, USA); Bane Vasić (University of Arizona, USA); Michael W. Marcellin (ECE Dept, The University of Arizona, USA)
pp. 1995-1999

Uniformly Reweighted Belief Propagation: A Factor Graph Approach

Henk Wymeersch (Chalmers University of Technology, Sweden); Federico Penna (Politecnico di Torino, Italy); Vladimir Savić (Universidad Politecnica de Madrid, Spain)
pp. 2000-2004

Fast Decoding of Regular LDPC Codes Using Greedy Approximation Algorithms

Nicholas Kalouptsidis (National and Kapodistrian University of Athens, Greece); Nicholas Kolokotronis (University of Peloponnese, Greece)
pp. 2005-2009

Connection Between Annealed Free Energy and Belief Propagation on Random Factor Graph Ensembles

Ryuhei Mori (Kyoto University, Japan)
pp. 2010-2014

W-12: Multiple Antenna Communication II

Polite Water-filling for the Boundary of the Capacity/Achievable Regions of MIMO MAC/BC/Interference Networks

Liu An (Peking University, P.R. China); Youjian (Eugene) Eugene Liu (University of Colorado at Boulder, USA); Haige Xiang (Peking University, P.R. China); Wu Luo (Peking University, P.R. China)
pp. 2015-2019

Noncoherent SIMO Pre-Log Via Resolution of Singularities

Erwin Riegler (Vienna University of Technology (VUT), Austria); Veniamin I. Morgenshtern (ETH Zürich, Switzerland); Giuseppe Durisi (Chalmers University of Technology, Sweden); Shaowei Lin (UC Berkeley, USA); Bernd Sturmfels (UC Berkeley, USA); Helmut Bölcskei (ETH Zurich, Switzerland)
pp. 2020-2024

Distributed STBCs with Full-Diversity Partial Interference Cancellation Decoding

Lakshmi Prasad Natarajan (Indian Institute of Science, Bangalore, India); B. Sundar Rajan (Indian Institute of Science, India)
pp. 2025-2029

A Family of Fast-Decodable MIMO Codes from Crossed-Product Algebras Over \mathbb{Q}

Laura Luzzi (Supélec, France); Frederique Oggier (Nanyang Technological University, Singapore)
pp. 2030-2034

S-12: Multiple Terminal Source Coding III

Multi-Terminal Source Coding with Action Dependent Side Information

Yeow-Khiang Chia (Stanford University, USA); Himanshu Asnani (Stanford University, USA); Tsachy Weissman (Stanford University, USA)
pp. 2035-2039

Multiterminal Source Coding with an Entropy-Based Distortion Measure

Thomas Courtade (UCLA, USA); Richard Wesel (University of California, Los Angeles, USA)
pp. 2040-2044

Efficient Distributed Source Coding for Multiple Receivers Via Matrix Sparsification

Chen Avin (Ben-Gurion University of the Negev, Israel); Michael Borokhovich (Ben-Gurion University of the Negev, Israel); Asaf Cohen (Ben-Gurion University of the Negev, Israel); Zvi Lotker (Ben Gurion University, Beer Sheva, Israel)
pp. 2045-2049

On the Vector Gaussian CEO Problem

Jun Chen (McMaster University, Canada); Jia Wang (Shanghai Jiao Tong University, P.R. China)
pp. 2050-2054

N-12: Relay Network Coding

Practical Network Coding on Three-Node Point-to-Point Relay Networks

Silas L. Fong (City University of Hong Kong, Hong Kong); Mingxi Fan (Qualcomm, Inc., USA); Raymond W. Yeung (The Chinese University of Hong Kong, Hong Kong)
pp. 2055-2059

Superposition Noisy Network Coding

Neevan Ramalingam (Iowa State University, USA); Zhengdao Wang (Iowa State University, USA)
pp. 2060-2064

Noisy Analog Network Coding for the Two-Way Relay Channel

Majid Nasiri Khormuji (Royal Institute of Technology (KTH), Sweden); Mikael Skoglund (Royal Institute of Technology, Sweden)
pp. 2065-2069

Distance Properties and Performance of Physical Layer Network Coding with Binary Linear Codes for Gaussian Two-Way Relay Channels

Tao Yang (CSIRO, Australia); Ingmar Land (University of South Australia, Australia); Tao Huang (University of New South Wales, Australia); Jinhong Yuan (University of New South Wales, Australia); Zhuo Chen (CSIRO ICT Centre, Australia)
pp. 2070-2074

M-12: Discrete Memoryless Interference Channel

The State-Dependent Interference Channel with States Available At a Cribbing Encoder and One Receiver

Shraga Bross (Bar-Ilan University, Israel); Yossef Steinberg (Technion, Israel)
pp. 2075-2079

Multi-Level Rate-Splitting for Synchronous and Asynchronous Interference Channels

Hideki Yagi (The University of Electro-Communications, Japan); H. Vincent Poor (Princeton University, USA)
pp. 2080-2084

On Interference Alignment and the Deterministic Capacity for Cellular Channels with Weak Symmetric Cross Links

Jörg Böhler (TU Berlin, Germany); Gerhard Wunder (Heinrich-Hertz-Institut, Germany)

pp. 2085-2089

Communication with Disturbance Constraints

Bernd Bandemer (Stanford University, USA); Abbas El Gamal (Stanford University, USA)

pp. 2090-2094

C-12: Coding Theory IV

Decomposing Permutations Via Cost-Constrained Transpositions

Farzad Farnoud (Hassanzadeh) (University of Illinois, Urbana-Champaign, USA); Olgica Milenkovic (University of Illinois, USA)

pp. 2095-2099

Computing the Ball Size of Frequency Permutations Under Chebyshev Distance

Min-Zheng Shieh (National Chiao Tung University, Taiwan); Shi-Chun Tsai (National Chiao Tung University, Taiwan)

pp. 2100-2104

Some Constructions of Maximal Witness Codes

Nikolaos Makriyannis (Universitat Pompeu Fabra, Spain); Bertrand Meyer (Ecole Polytechnique Fédérale de Lausanne, Switzerland)

pp. 2105-2109

E-12: Shannon Theory in Communications and Statistics

Causal State Amplification

Chiranjib Choudhuri (University of Southern California, USA); Young-Han Kim (UCSD, USA); Urbashi Mitra (University of Southern California, USA)

pp. 2110-2114

Separate Source-Channel Coding for Broadcasting Correlated Gaussians

Yang Gao (University of California, Riverside, USA); Ertem Tuncel (UC Riverside, USA)

pp. 2115-2119

Capacity Theorems for the Fading Interference Channel with a Relay and Feedback Links

Daniel Zahavi (Ben-Gurion University, Israel); Ron Dabora (Ben Gurion University, Israel)

pp. 2120-2124

An Information-Theoretic Approach to Constructing Coherent Risk Measures

Amir Ahmadi-Javid (Amirkabir University of Technology, Iran)

pp. 2125-2127

Me-12: Coding for Memories III

Constrained Flash Memory Programming

Amit Berman (Technion - Israel Institute of Technology, Israel); Yitzhak Birk (Technion, Israel)
pp. 2128-2132

Quasi-Cross Lattice Tilings with Applications to Flash Memory

Moshe Schwartz (Ben-Gurion University of the Negev, Israel)
pp. 2133-2137

Layered Index-Less Indexed Flash Codes for Improving Average Performance

Riki Suzuki (Nagoya Institute of Technology, Japan); Tadashi Wadayama (Nagoya Institute of Technology, Japan)
pp. 2138-2142

Error-Correcting Schemes with Dynamic Thresholds in Nonvolatile Memories

Hongchao Zhou (California Institute of Technology, USA); Anxiao Andrew Jiang (Texas A&M University, USA); Jehoshua Bruck (California Institute of Technology, USA)
pp. 2143-2147

G-12: Sensor Networks

Quickest Detection in Censoring Sensor Networks

Yajun Mei (Georgia Institute of Technology, USA)
pp. 2148-2152

Fast Averaging

Shreeshankar Bodas (MIT, USA); Devavrat Shah (Massachusetts Institute of Technology, USA)
pp. 2153-2157

A Variational Message Passing Algorithm for Sensor Self-Localization in Wireless Networks

Claus Pedersen (Aalborg University, Denmark); Troels Pedersen (Aalborg University, Denmark); Bernard Henri Fleury (Aalborg University, Denmark)
pp. 2158-2162

Distributed Detection Using MRC with Censored Sensors and Rayleigh Faded Communications

Chinmoy Kundu (Indian Institute of Technology Delhi, India); Sumit Kundu (N.I.T Durgapur, India); Gianluigi Ferrari (University of Parma, Italy); Riccardo Raheli (University of Parma, Italy)
pp. 2163-2167

AC-13: LDPC Codes XI

Graphical Models

Generalized Approximate Message Passing for Estimation with Random Linear Mixing

Sundeeep Rangan (Polytechnic University of New York University, USA)
pp. 2168-2172

Application of Belief Propagation to Trust and Reputation Management

Erman Ayday (Georgia Institute of Technology, USA); Faramarz Fekri (Georgia Institute of Technology, USA)
pp. 2173-2177

Normal Factor Graphs: A Diagrammatic Approach to Linear Algebra

Ali Al-Bashabsheh (University of Ottawa, Canada); Yongyi Mao (University of Ottawa, Canada); Pascal Vontobel (HP Labs, USA)
pp. 2178-2182

A Factor-Graph Approach to Lagrangian and Hamiltonian Dynamics

Pascal Vontobel (HP Labs, USA)
pp. 2183-2187

W-13: MIMO Interference Channels

On the Generalized Degrees of Freedom of the K - User Symmetric MIMO Gaussian Interference Channel

Parthajit Mohapatra (Indian Institute of Science, India); Chandra R Murthy (Indian Institute of Science, India)
pp. 2188-2192

Capacity of the MIMO Interference Channel to Within a Constant Gap

Sanjay Karmakar (University Of Colorado at Boulder, USA); Mahesh Kumar Varanasi (University of Colorado, USA)
pp. 2193-2197

The Generalized Degrees of Freedom of the MIMO Interference Channel

Sanjay Karmakar (University Of Colorado at Boulder, USA); Mahesh Kumar Varanasi (University of Colorado, USA)
pp. 2198-2202

The Degrees of Freedom Region of the MIMO Interference Channel with Delayed CSIT

Chinmay Vaze (University of Colorado at Boulder, USA); Mahesh Kumar Varanasi (University of Colorado, USA)
pp. 2203-2207

A Convergent Version of Max SINR for the MIMO Interference Channel

Craig Wilson (University of Illinois at Urbana-Champaign, USA); Venugopal Veeravalli (University of Illinois at Urbana-Champaign, USA)
pp. 2208-2212

S-13: Source Coding I

Proactive Source Coding

Onur Gungor (The Ohio State University, USA); Onur Ozan Koyluoglu (The University of Texas at Austin, USA); Hesham El Gamal (Ohio State University, USA); Can Emre Koksal (The Ohio State University, USA)
pp. 2213-2217

Near-Optimal Rates for Limited-Delay Universal Lossy Source Coding

András György (Computer and Automation Research Institute of the Hungarian Academy of Sciences, Hungary); Gergely Neu (Budapest University of Technology and Economics & MTA SZTAKI Institute for Computer Science and Control, Hungary)
pp. 2218-2222

On the Construction and MAP Decoding of Optimal Variable-Length Error-Correcting Codes

Ting-Yi Wu (National Chiao-Tung University, Taiwan); Po-Ning Chen (National Chiao Tung University, Taiwan); Fady Alajaji (Queen's University, Canada); Yungshiang Sam Han (National Taiwan University of Science and Technology, Taiwan)
pp. 2223-2227

Characterizing Compressibility with Lorenz Curves

Claudio Weidmann (CNRS / ENSEA / University Cergy-Pontoise, France)
pp. 2228-2232

Incremental Refinement Using a Gaussian Test Channel

Jan Østergaard (Aalborg University, Denmark); Ram Zamir (Tel Aviv University, Israel)
pp. 2233-2237

N-13: Two-Way Relay Channels

The Finite Field Multi-Way Relay Channel with Correlated Sources: The Three-User Case

Lawrence Ong (The University of Newcastle, Australia); Roy Timo (University of South Australia, Australia); Gottfried Lechner (University of South Australia, Australia); Sarah Johnson (University of Newcastle, Australia); Christopher Kellett (University of Newcastle, Australia)
pp. 2238-2242

Lattice Strategies for a Multi-Pair Bi-Directional Relay Network

Sang Joon Kim (Samsung, Korea); Besma Smida (Purdue University Calumet, USA); Natasha Devroye (University of Illinois at Chicago, USA)
pp. 2243-2247

Feedback Enlarges Capacity Region of Two-Way Relay Channel

Silas L. Fong (City University of Hong Kong, Hong Kong); Raymond W. Yeung (The Chinese University of Hong Kong, Hong Kong)
pp. 2248-2252

A new eigen-direction alignment algorithm for physical-layer network coding in MIMO two-way relay channels

Tao Yang (CSIRO, Australia); Xiaojun Yuan (Chinese University of Hong Kong, Hong Kong); Li Ping (City University of Hong Kong, Hong Kong); Iain B. Collings (CSIRO, Australia); Jinhong Yuan (University of New South Wales, Australia)
pp. 2253-2257

M-13: Multiple Access Capacity and Techniques

On Maximal Error Capacity Regions of Symmetric Gaussian Multiple-Access Channels

Sirin Nitinawarat (University of Illinois at Urbana-Champaign, USA)
pp. 2258-2262

Construction of Multiple Access Channel Codes Based on Hash Property

Jun Muramatsu (NTT Corporation, Japan); Shigeki Miyake (NTT, Japan)
pp. 2263-2267

Multiple Access Channel with Partial and Controlled Cribbing Encoders

Himanshu Asnani (Stanford University, USA); Haim H Permuter (Ben-Gurion University, Israel)
pp. 2268-2272

Capacity Regions of Discrete Asynchronous Multiple Access Channels

Lóránt Farkas (Budapest University of Technology and Economics, Hungary); Tamás Kóí (Budapest University of Technology and Economics, Hungary)
pp. 2273-2277

On the Capacity of a Hybrid Broadcast Multiple Access System for WDM Networks

Vinay A. Vaishampayan (AT&T Labs - Research & Columbia University, USA); Chao Tian (AT&T Labs - Research, USA); Mark Feuer (AT&T Labs - Research, USA)
pp. 2278-2282

C-13: Coding Theory V

The Ordered Hamming Metric and Ordered Symmetric Channels

Woomyoung Park (University of Maryland, USA); Alexander Barg (University of Maryland, USA)
pp. 2283-2287

Codes and Designs Related to Lifted MRD Codes

Natalia Silberstein (Technion - Israel Institute of Technology, Israel); Tuvi Etzion (Technion-Israel Institute of Technology, Israel)
pp. 2288-2292

Combinatorial Lower Bound for List Decoding of Codes on Finite-Field Grassmannian

Rachit Agarwal (University of Illinois at Urbana-Champaign, USA)
pp. 2293-2297

Density and Bounds for Grassmannian Codes with Chordal Distance

Renaud-Alexandre Pitaval (Aalto University, Finland); Olav Tirkkonen (Aalto University, Finland); Steven D Blostein (Queen's University, Canada)
pp. 2298-2302

Soft-Decision List Decoding of Reed-Muller Codes with Linear Complexity

Ilya Dumer (University of California at Riverside, USA); Grigory Kabatiansky (IIT, Moscow, Russia); Cédric Tavernier (CE e., UAE)
pp. 2303-2307

E-13: Matrix Completion and Rank Minimization

Subspace Expanders and Matrix Rank Minimization

Samet Oymak (California Institute of Technology, USA); Amin Khajehnejad (Caltech, USA); Babak Hassibi (California Institute of Technology, USA)
pp. 2308-2312

Low-Rank Matrix Recovery from Errors and Erasures

Yudong Chen (The University of Texas at Austin, USA); Ali Jalali (University of Texas at Austin, USA); Sujay Sanghavi (University of Texas, Austin, USA); Constantine Caramanis (The University of Texas at Austin, USA)
pp. 2313-2317

A Simplified Approach to Recovery Conditions for Low Rank Matrices

Samet Oymak (California Institute of Technology, USA); Karthik Mohan (University of Washington, USA); Maryam Fazel (California Institute of Technology, USA); Babak Hassibi (California Institute of Technology, USA)
pp. 2318-2322

Tight Recovery Thresholds and Robustness Analysis for Nuclear Norm Minimization

Samet Oymak (California Institute of Technology, USA); Babak Hassibi (California Institute of Technology, USA)
pp. 2323-2327

Support Recovery with Sparsely Sampled Free Random Matrices

Antonia Tulino (Bell Laboratories, USA); Giuseppe Caire (University of Southern California, USA); Shlomo (Shitz) Shamai (The Technion, Israel); Sergio Verdú (Princeton University, USA)
pp. 2328-2332

Me-13: Coding for Memories IV

Patterned Cells for Phase Change Memories

Anxiao Andrew Jiang (Texas A&M University, USA); Hongchao Zhou (California Institute of Technology, USA); Zhiying Wang (California Institute of Technology, USA); Jehoshua Bruck (California Institute of Technology, USA)
pp. 2333-2337

DRESS Codes for the Storage Cloud: Simple Randomized Constructions

Sameer Pawar (University of California, Berkeley, USA); Nima Noorshams (UC Berkeley, USA); Salim El Rouayheb (University of California, Berkeley, USA); Kannan Ramchandran (University of California at Berkeley, USA)
pp. 2338-2342

Bounds and Constructions for Granular Media Coding

Artyom Sharov (Technion, Israel); Ron M. Roth (Technion, Israel)
pp. 2343-2347

Symbol-Pair Codes: Algebraic Constructions and Asymptotic Bounds

Yuval Cassuto (EPFL, Switzerland); Simon Litsyn (Tel Aviv University, Israel)
pp. 2348-2352

On Systematic Encoding for Blaum-Roth Codes

Qian Guo (Fudan University, P.R. China); Haibin Kan (Fudan University, P.R. China)
pp. 2353-2357

G-13: Network Control

Network Control: A Rate-Distortion Perspective

Jubin Jose (University of Texas at Austin, USA); Sriram Vishwanath (University of Texas at Austin, USA)
pp. 2358-2362

Information Capacity of Energy Harvesting Sensor Nodes

Ramachandran Rajesh (Indian Institute of Science, India); Vinod Sharma (Indian Institute of Science, India); Pramod Viswanath (University of Illinois, Urbana-Champaign, USA)
pp. 2363-2367

Exploiting Peer-to-Peer State Exchange for Distributed Medium Access Control

Ka Hung Hui (Northwestern University, USA); Tianyi Li (Northwestern University, USA); Dongning Guo (Northwestern University, USA); Randall Berry (Northwestern University, USA)
pp. 2368-2372

Delay Performance of CSMA in Networks with Bounded Degree Conflict Graphs

Vijay Subramanian (Northwestern University, USA); Murat Alanyali (Boston University, USA)

pp. 2373-2377

Polite Water-Filling for Weighted Sum-Rate Maximization in MIMO B-MAC Networks Under Multiple Linear Constraints

Liu An (Peking University, P.R. China); Youjian (Eugene) Eugene Liu (University of Colorado at Boulder, USA); Vincent Lau (The university of science and Technology, Hong Kong); Haige Xiang (Peking University, P.R. China); Wu Luo (Peking University, P.R. China)

pp. 2378-2382

Friday, August 5

P-05: Vladimir Tikhomirov "Entropy in Information Theory and Functional Analysis" Plenary Lecture

AC-14: LDPC Codes XII

Decimation-Enhanced Finite Alphabet Iterative Decoders for LDPC Codes on the BSC

Shiva Kumar Planjery (University of Arizona, USA); Bane Vasić (University of Arizona, USA); David Declercq (ETIS lab. ENSEA/Cergy University/CNRS UMR, France)

pp. 2383-2387

Optimal and Suboptimal Receivers for Maximal-Rate Root-LDPC Codes Over MIMO Block-Fading Channels

Daniele Capirone (Politecnico di Torino, Italy); Alberto Tarable (Politecnico di Torino, Italy)

pp. 2388-2392

Rate-Equivocation Optimal Spatially Coupled LDPC Codes for the BEC Wiretap Channel

Vishwambhar Rathi (Icera, United Kingdom); Ruediger L Urbanke (EPFL, Switzerland); Mattias Andersson (Royal Institute of Technology, Sweden); Mikael Skoglund (Royal Institute of Technology, Sweden)

pp. 2393-2397

Capacity Achieving LDPC Ensembles for the TEP Decoder in Erasure Channels

Pablo M. Olmos (Universidad de Sevilla, Spain); Juan José Murillo-Fuentes (Universidad de Sevilla, Spain); Fernando Pérez-Cruz (Universidad Carlos III de Madrid, Spain)

pp. 2398-2402

W-14: Cognitive Communication

A New Capacity Result for the Z-Gaussian Cognitive Interference Channel

Stefano Rini (UIC, USA); Daniela Tuninetti (University of Illinois at Chicago, USA); Natasha Devroye (University of Illinois at Chicago, USA)

pp. 2403-2407

On the Capacity Region of the Cognitive Interference Channel with Unidirectional Destination Cooperation

Hsuan-Yi Chu (National Taiwan University, Taiwan); Hsuan-Jung Su (National Taiwan University, Taiwan)

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