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N58: SCINTILLATORS AND SCINTILLATION DETECTORS: PHOTODETECTORS I

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<i>Andrej Studen, Enrico Chesi, Vladimir Cindro, Neal H. Clinthorne, Eric Cochran, Borut Grosicar, Klaus Honscheid, S. S. Huh, Harris Kagan, Carlos Lacasta, Gabriela Llosa, Vladimir Linhart, Marko Mikuz, Vera Stankova, Peter Weilhammer, Dejan Zontar</i>	
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N60: NEUTRON DETECTORS AND INSTRUMENTATION II

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A Structured Organic Scintillator for Neutron Imaging	1777
<i>Kent J. Riley, Lena Ovechkina, Senerath Palamakumbura Zane Bell, Stuart Miller, Vivek V. Nagarkar</i>	
A Fully-automated, Liquid-moderated Neutron Spectrometer System	1781
<i>John Paul Archambault, Patrick R. B. Saull</i>	
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N61: HIGH ENERGY AND NUCLEAR PHYSICS INSTRUMENTATION: CALORIMETERS II

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N62: SCINTILLATORS AND SCINTILLATION DETECTORS: PHOTODETECTORS II

Timing Performance of 4x4mm² SiPMs with Different Cell Layout Coupled to LYSO Scintillator	1804
<i>Claudio Piemonte, Alberto Gola, Elisabetta Mazzuca, Alessandro Piazza, Alessandro Tarolli, Nicola Zorzi, Volkmar Schulz, Torsten Solf</i>	
Analysis and First Order Correction of Signal Saturation Effects in Photomultiplier Tubes for Improved Estimation of Interacting Radiation Energy in Lanthanum Bromide Scintillators	1809
<i>Nives Blasi, Sergio Brambilla, Ciro Boiano, Franco Camera, A. Camplani, Fabio C. L. Crespi, Agnese Giaz, Benedicte Million, Roberto Nicolini, Luna Pellegrini, Stefano Riboldi, Oliver Wieland</i>	

N63: NEUTRON DETECTORS AND INSTRUMENTATION III

Combined Composite Scintillation Detector for Separate Measurements of Fast and Thermal Neutrons	1813
<i>Nikolai Z. Galunov, Boris V. Grinyov, Natalya L. Karavaeva, Eugenia V. Martynenko, Oleg A. Tarasenko, Yaroslav V. Gerasymov, Oleg Ts. Sidletskiy</i>	
Lithium Glass Scintillator Neutron Detector as an Improved Alternative to the Standard ³He Proportional Counter	1819
<i>Vladimir Popov, Pavel Degtiarenko</i>	
Neutron Response of Rare-Earth-Doped ⁶LiF/CaF₂ Eutectic Composites with the Ordered Lamellar Structure	1823
<i>Noriaki Kawaguchi, Kentaro Fukuda, Takayuki Yanagida, Yutaka Fujimoto, Yuui Yokota, Kenichi Watanabe, Atsushi Yamazaki, Toshihisa Suyama, Akira Yoshikawa</i>	
Neutron Detection by Measuring Capture Gammas in a Calorimetric Approach	1827
<i>Claus-Michael Herbach, Guntram Pausch, Achim Kreuzels, Yong Kong, Ralf Lentering, Cristina Plettner, Katja Roemer, Falko Scherwinski, Paul Schotanus, Juergen Stein, Nikolai Teofilov, Thomas Wilpert</i>	

N64: SCIENTIFIC SIMULATION AND COMPUTING: BIO-MEDICAL COMPUTING

Estimation of Influence of Material Assignment in CT Data for Hadron Therapy Using GEANT4	1835
<i>Tsukasa Aso, Asuka Taniuchi, Tomohiro Yamashita, Takashi Akagi, Chihiro Omachi, Takashi Sasaki</i>	
Dosimetric Study in the Human Head for CT Investigation of the Inner Ear Using the Geant4 Toolkit	1839
<i>E. Lamanna, A. S. Fiorillo, A. Gallo, A. Narciso, L. Belmonte</i>	
A Dedicated Processor for Monte Carlo Computation in Radiotherapy	1843
<i>Viviana Fanti, Giovanna Rosa Fois, Roberto Marzeddu, Callisto Pili, Paolo Randaccio, Sabyasachi Siddhanta, Jenny Spiga, Artur Szostak</i>	
Acceleration of PET Monte Carlo Simulation using the Graphics Hardware Raytracing Engine	1848
<i>Zhiguang Wang, Peter. D. Olcott, Craig S. Levin</i>	
DICOM-RT Extension Support of Visualization Tool for Radiotherapy Simulation	1856
<i>Akinori Kimura, Tomohiro Yamashita, Takashi Akagi, Takashi Sasaki, Yota Tatsumi, Kyoko Hasegawa, Satoshi Tanaka</i>	

N65: HIGH ENERGY AND NUCLEAR PHYSICS INSTRUMENTATION: LARGE DETECTORS AND TEST FACILITIES

Data Acquisition for the Helium and Lead Observatory	1860
<i>Michael A. Schumaker, Axel Boeltzig, Tom H. Burritt, Charles A. Duba, Fraser A. Duncan, Jacques Farine, Alec Habig, Andrew Hime, Mark A. Howe, Alicja Kielbik, Christine Kraus, Kurt Nicholson, R. G. Hamish Robertson, Kate Scholberg, Jeff Secrest, Taylor C. Shantz, Clarence J. Virtue, John F. Wilkerson, Stanley Yen, Kai Zuber</i>	
The MiniCLEAN Single-Phase Noble Liquid Dark Matter Experiment	1866
<i>Michael Ronquest</i>	

N66: GASEOUS DETECTORS: DEVELOPMENTS WITH GAS ELECTRON MULTIPLIERS

Development of Gas Electron Multipliers with Resistive Kapton Electrodes	1873
<i>A. Yoshikawa, A. Nukariya, H. Hamagaki, T. Tamagawa, K. Ueno, A. Hayato, T. Gunji, R. Akimoto, S. Hayashi, T. Iwahashi, F. Asami, A. Ochi, R. Oliveira</i>	
First Results of Spherical GEMS	1877
<i>Serge Duarte Pinto, Matteo Alfonsi, Ian Brocky, Gabriele Croci, Eric David, Rui De Oliveira, Leszek Ropelewski, Miranda Van Stenis, Hans Taureg, Marco Villa</i>	

Development of a Time Projection Chamber (TPC) Using Gas Electron Multiplier (GEM) for Use as an Active Target	1881
<i>R. Akimoto, S. Ota, S. Michimasa, T. Gunji, H. Yamaguchi, T. Hashimoto, H. Tokieda, T. Tsuji, S. Kawase, H. Hamagaki, T. Uesaka, S. Kubono, T. Isobe, T. Kawabata, A. Ozawa, H. Suzuki, D. Nagae, T. Moriguchi, Y. Ito, Y. Ishibashi, H. Ooishi, And Y. Abe</i>	

N67: SEMICONDUCTOR DETECTORS: SILICON PIXEL DETECTORS

Recent Progress in Development of SOI Pixel Detectors	1885
<i>Toshinobu Miyoshi</i>	
SOI Detector with Drift Field due to Majority Carrier Flow - an Alternative to Biasing in Depletion	1889
<i>M. Trimpl, G. Deptuch, R. Yarema</i>	
Second Generation Monolithic Full-depletion Radiation Sensor with Integrated CMOS Circuitry	1896
<i>J. D. Segal, C. J. Kenney, S. I. Parker, C. H. Aw, W. J. Snoeys, B. Wooley, J. D. Plummer</i>	
Thin Pixel Development for the Layer0 of the SuperB Silicon Vertex Tracker	1901
<i>G. Casarosa, C. Avanzini, G. Batignani, S. Bettarini, F. Bosi, M. Ceccanti, R. Cenci, A. Cervelli, F. Crescioli, M. Dell'Orso, F. Forti, P. Giannetti, M. A. Giorgi, A. Lusiani, S. Gregucci, P. Mammì, G. Marchiori, M. Massa, F. Morsani, N. Neri, E. Paoloni, M. Piendibene, A. Profeti, L. Sartori, J. Walsh, E. Yurtsev, M. Manghisoni, V. Re, G. Traversi, M. Bruschi, R. Di Sipio, B. Giacobbe, A. Gabrielli, F. Giorgi, G. Pellegrini, C. Sbarra, N. Semprini, R. Spighi, S. Valentineti, M. Villa, A. Zoccoli, M. Citterio, V. Liberali, A. Stabile, F. Palombo, L. Gaioni, A. Manazza, L. Ratti, V. Speziali, S. Zucca, G. F. Dalla Betta, G. Soncini, G. Fontana, M. Bomben, L. Bosio, P. Cristaudo, D. Jugovaz, L. Lanceri, I. Rashevskaya, L. Vitale, G. Venier</i>	
Particle Detection with PNCCDs	1906
<i>Robert Andritschke, Norbert Meidinger, Johannes Elbs, Robert Hartmann, Alexander Ziegler, Nils Kimmel, Gabriele Schachner, Stefanie Ebermayer, Sven Herrmann, Olaf Halker, Jonas Reiffers, Peter Holl, Florian Schopper, Lothar Struder, Heike Soltau, Walter Assmann, Sabine Reinhardt</i>	

N69: GASEOUS DETECTORS: APPLICATIONS IN PARTICLE PHYSICS

Construction of the First Full-size GEM-based Construction of the First Full-size GEM-based Prototype for the CMS High-η Muon System	1909
<i>D. Abbaneo, S. Bally, H. Postema, A. Conde Garcia, J. P. Chatelain, G. Faber, L. Ropelewski, S. Duarte Pinto, G. Croci, M. Alfonsi, M. Van Stenis, A. Sharma, M. Villa, L. Benussi, S. Bianco, S. Colafranceschi, F. Fabbri, L. Passamonti, D. Piccolo, D. Pierluigi, G. Raffone, A. Russo, G. Saviano, A. Marinov, M. Tytgat, N. Zaganidis, M. Hohlmann, K. Gnanvo, M. G. Bagliesi, R. Cecchi, N. Turini, E. Oliveri, G. Magazzu, Y. Ban, H. Teng, J. Cai</i>	
The Straw Detector for the NA62 Rare Kaon Decay Experiment	1914
<i>Hans Danielson</i>	
Performance of the ATLAS Transition Radiation Tracker with Cosmic Rays and First High Energy Collisions at the LHC	1920
<i>James D. Degenhardt</i>	
Performance of Fast High-Resolution Muon Drift Tube Chambers for LHC Upgrades	1927
<i>B. Bittner, J. Dubbert, M. Kilgenstein, O. Kortner, S. Kortner, H. Kroha, F. Legger, J. Von Loeben, R. Richter, P. Schwegler, S. Adomeit, O. Biebel, A. Engl, R. Hertenberger, F. Rauscher, A. Zibell</i>	
A Study of the Performance of the Gas Transmission Monitor of the PHENIX Hadron Blind Detector	1931
<i>B. Azmoun, R. P. Pisani, S. Stoll, C. Woody</i>	
New Pixelized Micromegas Detector with Low Discharge Rate for the COMPASS Experiment	1935
<i>Damien Neyret</i>	

NM1: NSS/MIC JOINT SESSION I - SILICON-BASED PHOTODETECTORS

Energy Resolution of Scintillation Detectors with SiPM Light Readout	1940
<i>M. Grodzicka, M. Moszynski, T. Szczesniak, M. Kapusta, M. Szawlowski, D. Wolski</i>	
A 4D-PET Block Detector based on Silicon Photomultipliers	1949
<i>Sara Marcatili, Nicola Belcari, Maria G. Bisogni, Gianmaria Collazuol, Elena Pedreschi, Franco Spinella, Francesco Corsi, Maurizio Foresta, Cristoforo Marzocca, Gianvito Matarrese, Giancarlo Sportelli, Pedro Guerra, Andres Santos, Alberto Del Guerra</i>	
Arrays of Digital Silicon Photomultipliers - Intrinsic Performance and Application to Scintillator Readout	1954
<i>Carsten Degenhardt, Ben Zwaans, Thomas Frach, Rik De Gruyter</i>	
The HICAM Gamma Camera	1957
<i>R. Peloso, P. Busca, C. Fiorini, A. Abba, A. Geraci, A. Manenti, A. Longoni, G. Padovini, C. Bianchi, G. L. Poli, K. Erlandsson, B. F. Hutton, P. Lechner, H. Soltau, L. Strüder, A. Pedretti, P. Van Mullekom, L. Pallaro</i>	

NM2: NSS/MIC JOINT SESSION II - PARTICLE BEAM THERAPY

PENELOPE Monte Carlo Engine for Treatment Planning in Radiation Therapy with Very High Energy Electrons (VHEE) of 150-250 MeV	1961
<i>Vadim Moskvina, Francese Salvat, David K. Stewart, Colleen M. Desrosiers</i>	
Detection and Track Visualization of Primary and Secondary Radiation in Hadron Therapy Beams with the Pixel Detector Timepix	1967
<i>Jan Jakubek, Carlos Granja, Oliver Jäkel, Maria Martisikova, Stanislav Pospisil</i>	

NM3: NSS/MIC JOINT SESSION III - NEW TECHNOLOGIES & MEDICAL DEVICES

Progress on Photonic Crystals	1970
<i>P. Lecoq, E. Auffray, S. Gundacker, H. Hillemanns, P. Jarron, A. Knapitsch, J. L. Leclercq, X. Letartre, T. Meyer, K. Pauwels, F. Powolny, C. Seassal</i>	
Evaluation of the Radiation Hardness and Charge Summing Mode of a Medipix3-based Detector with Synchrotron Radiation	1976
<i>Eva N. Gimenez, Rafael Ballabriga, Michael Campbell, Igor Dolbnya, Ian Horswell, Xavier Llopert, Julien Marchal, Kawal J. S. Sawhney, Nicola Tartoni, Daniel Turecek</i>	
Thick Monolithic Scintillation Crystals for TOF-PET with Depth-of-interaction Measurement	1981
<i>Ruud Vinke, Herman T. Van Dam, Freek J. Beekman, Herbert Lohner, Dennis R. Schaart, Peter Dendooven</i>	
Depth-of-Interaction Compensation Using a Focused- Cut Scintillator for a Pinhole Gamma Camera	1985
<i>Fares Alhassen, Sangtaek Kim, Robert G. Gould, Youngho Seo, Haris Kudrolli, Bipin Singh, Vivek V. Nagarkar</i>	
CsI(Tl)/PIN Solid State Detectors for Combined High Resolution SPECT and CT Imaging	1987
<i>Joel Kindem, Chuanyong Bai, Richard Conwell</i>	
Signal Analysis for Improved Timing Resolution with Scintillation Detectors for TOF PET Imaging	1991
<i>R. I. Wiener, M. Kaul, S. Surti, J. S. Karp</i>	

NMR: NSS/MIC/RTSD JOINT SESSION - SEMICONDUCTOR-BASED IMAGING SYSTEMS

ChromAIX: Fast Energy Resolved Photon-counting Readout Electronics for Future Human Computed Tomography	1996
<i>Christoph Herrmann, Roger Steadman, Oliver Mühlens</i>	
Development of Edge-on Type CdTe Detector Module for Gamma Camera	2000
<i>Isao Takahashi, Takafumi Ishitsu, Hidetaka Kawauchi, Juhyun Yu, Tomoyuki Seino, Izumi Fukasaku, Yoshinori Sunaga, Shinichi Inoue, Naoyuki Yamada</i>	
Counting Rate Performance Measurement of Newly Developed Si/CdTe Compton Camera for Biological and Medical Applications	2004
<i>Mitsutaka Yamaguchi, Naoki Kawachi, Tomihiro Kamiya, Nobuo Suzui, Shu Fujimaki, Hirokazu Odaka, Shinnosuke Ishikawa, Motohide Kokubun, Shin Watanabe, Tadayuki Takahashi, Hirofumi Shimada, Kazuo Arakawa, Yoshiyuki Suzuki, Kota Torikai, Yukari Yoshida, Takashi Nakano</i>	

NR: NSS-RTSD JOINT SESSION - SEMICONDUCTOR-BASED NEUTRON DETECTORS

High Efficiency Dual-Integrated Stacked Microstructured Solid-State Neutron Detectors	2008
<i>S. L. Bellinger, R. G. Fronk, W. J. McNeil, T. J. Sobering, D. S. McGregor</i>	

M03: PET/MR AND SPECT/MR INSTRUMENTATION

PET Performance of the GEMINI TF PET-MR: The World's First Whole Body PET-MRI Scanner	2013
<i>Navdeep Ojha, Jerome Griesmer, Zhiqiang Hu, Ling Shao, David Izquierdo, Josef Machac, Osman Ratib, Habib Zaidi, Valentin Fuster, Zahi A Fayad</i>	
MR Insertable Brain PET Using Tileable GAPD Arrays	2016
<i>Key Jo Hong, Yong Choi, Jin Ho Jung, Jihoon Kang, Wei Hu, Hyun Keong Lim, Yoonsuk Huh, Sangsu Kim, Ji Woong Jung, Kyu Bom Kim, Myung Sung Song, Hyun-Wook Park</i>	
Optical Network-based PET DAQ System: One Fiber Optical Connection	2020
<i>Ealgoo Kim, Peter Olcott, Craig Levin</i>	

M04: X-RAY CT RECONSTRUCTION AND CORRECTIONS

Coronary Segmentation Based Motion Corrected Cardiac CT Reconstruction	2026
<i>Alfonso A. Isola, Coert T. Metz, Michiel Schaap, Stefan Klein, Wiro J. Niessen, Michael Grass</i>	
Blooming Artifact Reduction for Cardiac CT	2030
<i>Sven Steckmann, Marc Kachelrieß</i>	
Empirical Scatter Correction (ESC): A New CT Scatter Correction Method and its Application to Metal Artifact Reduction	2036
<i>Esther Meyer, Clemens Maaß, Matthias Baer, Rainer Raupach, Bernhard Schmidt, Marc Kachelrieß</i>	
Low-dose CT in SPECT/CT Patient Scan	2042
<i>Junguo Bian, Xiao Han, Jiong Wang, Emil Y. Sidky, Lingxiong Shao, Xiaochuan Pan</i>	
Low-Dose Phase-Correlated Cone-Beam Micro-CT of Small Animals	2046
<i>Stefan Sawall, Frank Bergner, Robert Lapp, Markus Mronz, Marek Karoleczak, Andreas Hess, Marc Kachelrieß</i>	
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