

Monday 8

8:00 Registration

8:45 Opening

9:00 *Invited speaker*
Scintillators for Neutron Detection and Imaging
Nagarkar V. - Radiation Monitoring Devices Inc. (USA)

SESSION 1: Applications of scintillators (Part 1)

9:45 The PicoCal for the LHCb Upgrade II: Light-based ECAL Technologies with Picosecond Timing
Martinazzoli L. - CERN (Switzerland)

10:00 Ultrafast nanocomposite scintillators based on Cd-enhanced CsPbCl₃ nanocrystals in polymer matrix
Carulli F. - University of Milano-Bicocca (Italy)

10:15 Coffee break

SESSION 2: Applications of scintillators (Part 2)

10:45 *Keynote*
Cryogenic pure-CsI crystals for neutrino detection potential
Sun X. - Institute of High Energy Physics Beijing (China)

11:15 The CMS MTD Barrel: design optimization, performance validation and detector construction
Lucchini M.T. Toliman - INFN and University of Milano-Bicocca (Italy)

11:30 New developments in the OMNISCINTI™ project: a multiple radiation discrimination with a unique scintillator
Bertrand G. - Université Paris Saclay, CEA, List (France)

11:45 Real-in-time dose measurements in brachytherapy procedure using scintillation detectors
Witkiewicz-Lukaszek S. - Kazimierz Wielki University (Poland)

12:00 Exploring Cherenkov and Scintillation emission in crystals arrays using Low-Noise High-Frequency electronics
Terragni G. - Technical University of Vienna (Austria)

12:15 Lunch

SESSION 3: Characterizations of scintillators (Part 1)

13:45 *Keynote*
Facts and Fantasy on the organic-inorganic lead halide perovskite scintillators
Dorenbos P. - Delft University of Technology (Netherlands)

14:15 Crystal Growth and Scintillation Properties of Eu²⁺-doped TlSr₂Br₅
van Loef E. - Radiation Monitoring Devices, Inc. (USA)

14:30 Exploring the Scintillation Characteristics of CsCu₂I₃
van Blaaderen J. - Delft University of Technology (Netherlands)

- 14:45 Scintillation properties of the Cs₂ZrCl₆ crystal over a 5-300 K temperature range
Nagorny S. - Queen's University (Canada)
- 15:00 Magnesium Modified Cesium Lead Bromide
Buryi M. - Institute of Plasma Physics of the Czech Academy of Sciences (Czech Republic)
- 15:15 The PARIS array phoswich characterization with SiPM readout
Giaz A. - INFN Milano (Italy)

15:30 Coffee break

SESSION 3: Characterizations of scintillators (Part 2)

- 16:00 Low Temperature Properties of Li₂MoO₄ and Na₂MoO₄ crystal for cryogenic phonon detectors
Xue M. - University of Science and Technology of China (China)
- 16:15 The role of Ce³⁺ Co-dopant on Luminescent Enhancement of Bi³⁺ Emission and Bi³⁺→Bi²⁺ Conversion in LiLaP₄O₁₂ host
Valerio M. - Federal University of Sergipe (Brazil)
- 16:30 Chalcogenide Scintillators for Modern Cryogenic Detectors for Low Background Nuclear Spectrometry Systems
Rybalka I. - Institute for Scintillation Materials of National Academy of Sciences of Ukraine (Ukraine)

SESSION 4: TWISMA

- 16:45 *Keynote*
Optimization of Ce-doped garnet scintillators by complex codoping with divalent cations
Sidletskiy O. - Institute for Scintillation Materials NAS of Ukraine (Ukraine)
- 17:15 Investigating scintillation kinetics of GAGG and YAG for HEP applications, from laboratory to particle beams
Roux L. – CERN (Switzerland)
- 17:30 Improving timing performance of BSO scintillator
Viahin O. - Institute for Scintillation Materials NAS of Ukraine (Ukraine)
- 17:45 Growth and characterization of multicomponent garnets grown under reducing atmosphere
Kofanov D. - Institute for Scintillation Materials NAS of Ukraine (Ukraine)
- 18:00 Impact of Ce, Mg concentrations on the scintillation performance of GAGG shaped single crystals
Kononets V. - Université Claude Bernard Lyon1 (France)

18:15-20:00 Welcome cocktail

Tuesday 9

- 8:45 *Invited speaker*
Highly luminescent perovskite nanocrystals as scintillators: challenges and opportunities
Kovalenko M. – ETH Zurich (Switzerland)

SESSION 5: Nano- and metamaterials (Part 1)

- 9:30 Spectral Dynamics in GaN Photonic Crystal Scintillators: Elucidating Optical Responses Across UV, X-ray, and Alpha Radiation
Yasar F. - Jet Propulsion Laboratory NASA, Caltech (USA)
- 9:45 YAG:Ce^{3+/4+} aerogels: efficiency, timing, diffusion and self-absorption
Mai P. - Universite Claude Bernard Lyon 1 (France)
- 10:00 Fast timing with highly loaded cesium lead halide perovskite nanocomposites
Mihóková E. - Institute of Physics, Czech Academy of Sciences (Czech Republic)
- 10:15 Nanoscintillators for biomedical applications: optimizing the functionalization to control biocompatibility
Bulin A-L - Université Grenoble Alpes (France)
- 10:30 Coffee break

SESSION 6: Scintillators for fast timing detection and imaging (Part 1)

- 11:00 A new class of plastic scintillators for fast timing detector and medical applications
Traini M. - INFN National Institute for Nuclear Physics, Roma (Italy)
- 11:15 Additive Manufacturing of Structural and Pixelated/Discriminating Scintillators
Wolverton A. - Nevada National Security Sites (USA)
- 11:30 Slow Excitation Transfer via Gadolinium Subsystem in Ce-doped Garnet-type Scintillators and Blocking the Transfer by Aliovalent Codoping
Tamulaitis G. - Vilnius University (Lithuania)
- 11:45 Neutron and Gamma-ray Imaging of Th-232 and Cm-244 using Organic Glass Scintillators
Lopez R. - University of Michigan (USA)
- 12:00 Growth and scintillation characteristics of ultrafast Cs₂ZnCl₄ crystal scintillators
Shi Y. - Shanghai Institute of Ceramics, Chinese Academy of Sciences (China)
- 12:15 Lunch

SESSION 7: Mechanisms and theory of scintillation

- 13:45 *Keynote*
The Decay of Ultrafast Cross-Luminescence in Binary and Ternary Scintillator Materials
Nagirnyi V. - University of Tartu (Estonia)
- 14:15 Photoluminescence and scintillation characteristics of undoped and Ce-doped (Gd,Y)AlO₃ single crystals
Kotykova M. - Institute of Physics of the Czech Academy of Sciences (Czech Republic)
- 14:30 Simulation of Excitation Transfer via Gd Sublattice in Garnet-type Scintillators
Talochka Y. - Vilnius University (Lithuania)

- 14:45 Compositionally Disordered Crystalline Compounds for Novel Scintillation Materials
Korzhik M. - Belarus State University (Belarus)
- 15:00 Design criteria and fundamental limits of Sm²⁺-doped halide scintillators
van Aarle C. - Delft University of Technology (Netherlands)
- 15:15 Influence of partial substitution of aluminum and gallium by scandium ions on energy transfer processes in garnet crystals
Spassky D. - University of Tartu (Estonia)
- 15:30 Unveiling Temperature-Dependent Scintillation Mechanisms in Toluene: Insights from X-ray and Optical Excitation Studies
Wolszczak W.W. - Lawrence Berkeley National Laboratory (USA)
- 15:45 Coffee break
- 16:15-18:15 Poster session

Wednesday 10

- 8:45 *Invited speaker*
Recent Advances in Halide Scintillators
Wu Y. - Shanghai Institute of Ceramics of the Chinese Academy of Sciences (China)

SESSION 8: Crystals: growth and structural control

- 9:30 *Keynote*
Flux growth of oxide scintillators for neutron detection
Kodama S. - Saitama University (Japan)
- 10:00 Room Temperature-Grown CsCu₂I₃ Perovskite Crystal via Solution Processing: Unveiling Scintillation Properties
Gourishetty A.K. - Indian Institute of Technology Roorkee (India)
- 10:15 Oxide single crystals with high melting point grown by advanced micro-pulling-down method
Yokota Y. - Tohoku University (Japan)
- 10:30 Highly Efficient Solution Synthesis, Crystal Growth, and Scintillation Properties of Cs₂TeCl₆
Lewis M. - Queen's University (Canada)

10:45 Coffee break

SESSION 9: Optical ceramics and glasses

- 11:15 *Keynote*
Role of Cerium Concentration on Defect-driven Luminescence Phenomena in GAGG Ceramics Obtained by Reactive Sintering
Moretti F. - Lawrence Berkeley National Laboratory (USA)
- 11:45 Structure-property relationship of scintillating garnet optical ceramics towards effective radiation detection schemes
Cova F. - University of Milano-Bicocca (Italy)
- 12:00 Online Radiation Induced Attenuation measurements of Radiophotoluminescence Dosimeters irradiated with X-rays: Dose rate dependence at high doses
Raj Mandal A. - Université Jean Monnet (France)
- 12:15 Temperature Dependence of Hafnate Scintillators
Kurosawa S. - Tohoku University (Japan)
- 12:30 Effects of Ce concentration on the structural and optical properties in Ce:GAGG ceramic scintillators
Bowman W. - University of Central Florida (USA)

12:45 Lunch and excursions

Thursday 11

- 8:45 *Invited speaker*
Needs and trends in scintillation for radionuclide metrology
Sabot B. - Université Paris-Saclay, CEA, LIST (France)

SESSION 10: Characterizations of scintillators (Part 3)

- 9:30 Influence of Dual-Organic-Cation on Optical and Scintillation Properties in Perovskite Single Crystal Scintillators
Kuddus Sheikh M.A. - PORT Polish Center for Technology Development (Poland)
- 9:45 Radiation resistance of the Muon Collider Crilin calorimeter prototype equipped with Cherenkov lead fluoride crystals
Verna A. - ENEA Nuclear Department, Casaccia Research Center (Italy)
- 10:00 Performance Characterization of Organic Glass Scintillators
Maurer T. - University of Michigan (USA)

10:15 Coffee break

SESSION 11: Scintillators for neutron detection and imaging

- 11:45 *Keynote*
Melt-Blended Organic Scintillators for High Efficiency Neutron Imaging
Myllenbeck N. - Sandia National Laboratories (USA)
- 11:15 Design of Novel Capture-gated Neutron Spectrometer with a CLYC(Ce) scintillator
Park H.W. - Korea Research Institute of Standards and Science (Republic of Korea)
- 11:30 Enabling fast neutron spectroscopy in CLYC through advanced pulse shape discrimination
Laplace T. - University of California (USA)
- 11:45 Lithium-6 neutron scintillators
Jongman J. - Scintacor (United Kingdom)

12:00 Lunch

SESSION 12: Scintillators for fast timing detection and imaging (Part 2)

- 13:30 *Keynote*
Prospects for the use of scintillators in photon-counting CT scanners
Schaart D. - Delft University of Technology (Netherlands)
- 14:00 Relaxation Processes Leading to Ultrafast Luminescence in K_2SiF_6 and Na_2SiF_6 Studied Under Synchrotron Radiation Excitation
Kirm M. - University of Tartu (Estonia)
- 14:15 Cross-luminescence in cesium-based ternary fluorides
Vanecek V. - JSPS International Research Fellow - Sendai (Japan)
- 14:30 Investigation of Timing Properties of $Tl_2LaCl_5:Ce$ crystal Scintillators for PET Applications
Kim H.J. - Kyungpook National University (Republic of Korea)
- 14:45 $(Gd,Lu,Y)_3Al_2Ga_3O_{12}:Ce,Mg$ with optimized coincidence time resolution for PET-TOF scanners
Novotny R. - Justus Liebig University (Germany)

- 15:00 Metal-Loaded Organic Glass Scintillators for Gamma-Ray Spectroscopy
Witzke R. - Sandia National Laboratories (USA)
- 15:15 A novel scintillator detector for online high-resolution proton beam profiling
Leccese V. - CSEM SA Neuchâtel (Switzerland)

15:30 Coffee break

SESSION 13: Nano- and metamaterials (Part 2)

- 16:00 *Keynote*
A few recent developments in nanophotonic scintillators
Roques-Carmes C. - Stanford University (USA)
- 16:30 Tailoring the Purcell enhancement in nanoplasmonic perovskite scintillators
Kowal D. - PORT Polish Center for Technology Development (Poland)
- 16:45 Improving the scintillating sensors properties: nanoparticles and nanocomposites
de Oliveira Lima K. - CEA-Saclay (France)
- 17:00 Halide- and oxide-based composite, nano and meta materials: comparison and luminescent properties
Cuba V. - Czech Technical University in Prague (Czech Republic)
- 17:15 Sensitized triplet-triplet annihilation in nanostructured polymeric scintillators allows for pulse shape discrimination
Hu X. - Adolphe Merkle Institute at University of Fribourg (Switzerland)
- 17:30 Latest Developments on Low-Dimensional Lead-Free Rb-based Metal Halides for Radiation Detection
Mulholland R. - University of Surrey (United Kingdom)
- 17:45 Reabsorption-free scintillating MOF crystals activated by ultrafast energy transfer
Perego J. - University of Milano-Bicocca (Italy)
- 18:00 Recent advancements in development of composite scintillators based on epitaxial structures of oxide compounds
Zorenko Y. - Kazimierz Wielki University in Bydgoszcz (Poland)

20:00 Gala dinner

Friday 12

- 8:45 *Invited speaker*
Scintillators in the wild – the present and future of gamma-ray sensing in geophysical applications
Limburg H. - Medusa Radiometrics B.V. (Netherlands)

SESSION 14: Applications of scintillators (Part 3)

- 9:30 The CUPID neutrinoless double-beta decay experiment
Di Domizio S. – Università di Genova (Italy)
- 9:45 A monocrystal based detection unit for semi-continuous determination of tritium in wastewater samples
Fejgl M. - SÚRO, v.v.i. (Czech Republic)
- 10:00 Multicomponent nanoscintillators in radiotherapy and Alzheimer's disease treatment
Villa I. - University of Milano-Bicocca (Italy)

10:15 Coffee break

SESSION 15: Applications of scintillators (Part 4)

- 10:45 *Keynote*
Potential of radioluminescence for phototherapy in the treatment of Parkinson's disease
Muñoz Velasco I. - Univ. Grenoble Alpes, CEA, Leti (France)
- 11:15 An overview of the CMS High Granularity Calorimeter and its current status
Yi-Mu Chen – University of Maryland (USA)
- 11:30 Multi-energy imaging of SiPM-based photon-counting CT using Ce:YGAG scintillators compared with clinical dual-energy CT
Sato D. - Tohoku University (Japan)
- 11:45 Nanoparticle-based Scintillating Aerogels for Real-time Radioactive Gas Detection
Cheref Y. – Université Claude Bernard (France)

12:00 Closing