
Thursday, 2nd July | Arrival

Friday, 3rd July

10:30 – 11:00 | Registration

11:00 – 13:00 | Opening & Scientific Session I

Welcome & Introductory Lecture

- **Prof. Paweł Moskał**
First imaging of quantum entanglement in humans – Developing Quantum Entanglement PET scanner in Poland

Keynote Lectures

- **Prof. Ryszard Horodecki**
Quantum correlations and their singularities
- **Prof. Karol Życzkowski**
Quantum Entanglement and the Geometry

13:00 – 14:30 | Lunch Break

14:30 – 16:00 | Scientific Session II

- **Prof. Antonio Di Domenico (Sapienza University of Rome, Italy)**
Entanglement, discrete symmetries and time paradoxes in neutral K-mesons: The “Back from the Future” quantum effect
- **Prof. Kenji Shimazoe (University of Tokyo, Japan)**
A ring-type quantum entangled PET (QEPET) system with GAGG-SiPM and its performance
- **Dr. Jan Kotodyński (Institute of Physics, Polish Academy of Sciences, Poland)**
Quantum information meets particle physics: Detecting entanglement in para-positronium annihilation photons

16:00 – 16:40 | Coffee Break

16:40 – 18:10 | Scientific Session III

- **Prof. Ivica Frišić (University of Zagreb, Croatia)**
Study of azimuthal correlations of Compton-scattered gamma from ortho-positronium
- **Prof. Alan J. Barr (University of Oxford, UK)**
Measuring quantum entanglement at the Large Hadron Collider
- **Prof. Steven Bass (Kitzbuehel Centre for Physics, Austria)**
The origin of gauge symmetries with connection to long-range quantum entanglement

18:30 | Networking Dinner

Saturday, 4th July

09:30 – 11:00 | Scientific Session IV

- **Prof. Shiva Abbaszadeh (UC Santa Cruz, USA)**
Noise-Reduced Transmission Tomography Using Photon-Pair Correlations
- **Prof. Petar Žugec (University of Zagreb, Croatia)**
Klein–Nishina meets Pryce–Ward: Semi-classical simulations of annihilation photon correlations
- **Dr. Michał Eckstein (Jagiellonian University, Poland)**
Correlations beyond quantum entanglement and how to find them

11:00 – 11:40 | Coffee Break

11:40 – 13:10 | Scientific Session V

- **Prof. Francesco Giacosa (Jan Kochanowski University, Poland)**
Twin Sites and Strong Locality in the (3,3,2,2) Bell Scenario
- **Dr. Peter Caradonna (University of Tokyo, Japan)**
Compton scattering tomography of annihilation photons
- **Dr. Dorota Grabowska (University of Washington, USA)**
Quantum Magic in Non-Abelian Gauge Theories

13:10 – 14:40 | Lunch Break

14:40 – 16:10 | Scientific Session VI

- **Prof. Krzysztof Kutak (Institute of Nuclear Physics, Poland)**
Entropy production in Deep Inelastic Scattering
- **Dr. Sebastiano Mariazzi (University of Trento & TIFPA, Italy)**
Towards production of positronium clouds with selected quantum numbers for entanglement studies
- **Dr. Juan Ramón Muñoz de Nova (Consejo Superior de Investigaciones Científicas, Spain)**
Entanglement: a practical resource for Quantum Field Theory

16:10 – 16:50 | Coffee Break

16:50 – 18:20 | Scientific Session VII

- **Prof. Juana Antonio Aguilar Saavedra (IFT UAM/CSIC, Spain)**
Quantum entanglement and particle decay
- **Prof. Mihael Makek (University of Zagreb, Croatia)**
Positron Emission Tomography imaging with quantum-entangled Compton scatter events – status
- **Prof. Roman Skibiński (Jagiellonian University, Poland)**
Search for quantum entanglement in NN and Nd scattering
- **Mr. Deepak Kumar (Jagiellonian University, Poland)**
Measuring polarization correlation of annihilation photons in e^+e^- decays using modular J-PET

18:20 – 18:50 | Discussion and Closing Remarks

19:00 | Networking Dinner