

The 1st Total-Body J-PET general meeting 2024

Time	Agenda	Speaker
Saturday, 05 October 2024		
18:00 - 21:00	Integration Meeting	Indus Tandoor Świętego Tomasza 18
Sunday, 06 October 2024		
10:00 - 11:10	Opening and short statements from Collaborating Institutions	
	Welcome talk	Prof. Zbigniew Postawa The Dean of the Faculty of Physics
	Support for the J-PET	Dr. Gabriela Konopka-Cupiał Director of The Center for Technology Transfer, Jagiellonian University
	Collaboration of Cracow University Hospital	Prof. Anna Sowa - Staszczak Head of Nuclear Medicine Unit, Cracow University Hospital
	Collaboration of LNF with J-PET	Prof. Catalina Curceanu National Laboratory of Frascati, Italy
	Collaboration of AGH with J-PET	Prof. Tomasz Szumlak AGH University of Science and Technology
	Collaboration of CCB with J-PET	Prof. Renata Kopeć Director of Cyclotron Center Bronowice
	Collaboration of PK with J-PET	Prof. Edward Lisowski Cracow University of Technology
	Collaboration of Institute of Nuclear Chemistry and Technology with J-PET	Dr. Rafał Walczak / Prof. Agnieszka Majkowska Institute of Nuclear Chemistry and Technology, Warsaw
	Collaboration of UMCS with J-PET	Prof. Bożena Jasińska / Dr. Marek Gorgol Maria Curie-Skłodowska University, Lublin
	Collaboration of HIL UW with J-PET	Dr. Jarosław Choiński / Dr. hab. Anna Stolarz Heavy Ion Laboratory, University of Warsaw
	Center for Theranostics a home for total-body J-PET	Prof. Ewa Stępień Jagiellonian University
	Stairway to the Total-body J-PET	Prof. Paweł Moskał Jagiellonian University
11:10 - 11:40	Coffee break and conference photo	
11:40 - 12:50	Status of the TB-J-PET Hardware preparation	
11:40	Scintillators	Dr. Łukasz Kapłon Jagiellonian University
11:47	SiPMs etc..	Dr. Szymon Niedźwiecki Jagiellonian University
11:54	Triggerless Data Acquisition and Front End Electronic	Dr. Grzegorz Korcyl Jagiellonian University
12:09	Design and construction of housing and cooling system	Prof. Edward Lisowski / Prof. Grzegorz Filo Cracow University of Technology
12:19	Design and construction of the cross-stage moving system for PET and CT	mgr Tefrik Kaplanoglu Jagiellonian University
12:26	Design and construction of positronium annihilation chambers	Dr. Marek Gorgol Maria Curie-Skłodowska University, Lublin
12:33	Establishing Laboratory for the J-PET modules testing	Dr. Sushil Sharma Jagiellonian University
12:40	Establishing facility for BIO Positron Annihilation Lifetime Spectroscopy	Dr. Karol Kubat Jagiellonian University
12:50 - 13:00	Coffee break	

13:00 - 13:50 Status of the TB-J-PET Software preparation

13:00 Graphical User Interface and multi-threaded programming framework	Dr. Bartłomiej Rachwał AGH University of Science and Technology
13:10 Status of the TB-J-PET Software preparation	Krzysztof Kacprzak Jagiellonian University
13:20 Data archiving systems and computer center	Dr. Eryk Czerwiński Jagiellonian University
13:30 Status of PET and Positronium image reconstruction	mgr Manish Das Jagiellonian University
13:40 Status of the brain imager design	Dr. Martin Reader Jagiellonian University

13:50 - 14:50 Lunch break**14:50 - 16:30 Funded research project and project under preparation**

-> Center for Theranostics Flagship Project	
-> MNiSW investment project: "Tomograf J-PET/CT do jednoczesnego obrazowania całego ciała"	
-> MNiSW SPUB: "Cyfrowy Modularny Pozytonowy Tomograf Emisyjny"	
-> MAESTRO: "Total-body Jagiellonian Positron Emission Tomography - development of image-driven biomarkers"	
-> OPUS-18: "Precision symmetry tests between matter and anti-matter via measurer decays of positronium atoms using the modular J-PET tomograph"	
-> OPUS-22: "Development of three-photon emitting radiotracers for positronium imaging"	
-> ERC: 14:50 "Can tissue oxidation be sensed by positronium?" (Submitted)	Prof. Paweł Moskał Jagiellonian University
-> OPUS24-LAP: "High-throughput PET imaging by decoding multi-photon signals on long axial field-of-view PET using physics-guided artificial intelligence"	
-> OPUS-23: "Extracellular vesicles modifications for future drug delivery systems"	
-> EU Maria-Curie action: UPLIFT "UPright radiotherapy: Learning, Innovation, Fellowship and Train"	
-> SPUB: "Infrastruktura do badań przedklinicznych, klinicznych i nowych terapii - Centrum Teranostyki" (Submitted)	Prof. Ewa Stępień Jagiellonian University
OPUS-22: 15:10 "Development of three-photon emitting radiotracers for positronium imaging"	Dr. Rafał Walczak Jagiellonian University
SONATA-BIS: "Doors to the Mirror World - searching for the Dark Matter candidates with the novel J-PET detector"	Dr. Elena Perez Del Rio Jagiellonian University
SONATA-BIS: 15:26 "Inertial sensing on Positronium atoms: towards measuring the gravitational effects on matter-antimatter system"	Dr. Sushil Sharma Jagiellonian University
SONATA-BIS: 15:34 "μPPET: studying the Cosmic Rays Muon Puzzle by probing muons with J-PET"	Dr. Alessio Porcelli Jagiellonian University
MINIATRA: "Właściwości optyczne i rozdzielczość czasu przelotu polimerowych scyntylatorów z dużą techniczną długością tłumienia dla skanerów pozytonowej tomografii emisyjnej na całe ciało"	Dr. Łukasz Kapłon Jagiellonian University
MINIATRA: "Opracowanie radioizotopowo znakowanych pęcherzyków zewnątrzkomórkowych do teranostycznej terapii nowotworowej"	Dr. Magdalena Skalska Jagiellonian University
PRELUDIUM: "Influence of the ortho-para conversion process on the probability of creation of different positronium states"	Dr. Kamil Dulski Jagiellonian University
PRELUDIUM: "First measurement of CP and CPT violation sensitive angular correlation operator in ortho-positronium decays"	mgr Neha Chug Jagiellonian University
SONATA-BIS: "Studies on the three-gamma decays of the positronium atom using the modular J-PET tomograph from fundamental research to medical imaging" (Submitted)	Dr. Magdalena Skurzok Jagiellonian University
PRELUDIUM: "Probing the Quantum Nature of Positron Annihilation: A Polarization Correlation Study aided by Machine Learning" (Submitted)	mgr Deepak Kumar Jagiellonian University
16:18 in preparation SONATA ".... "	Dr. Martyna Durak-Kozica Jagiellonian University

Dr. Kamil Wawrowicz
Jagiellonian University

16:25 Contribution to the OPUS-LAP project

16:30 -- 17:00 Coffee break

17:00 - 18:20 PhD projects under realisation

17:00 Machine-learning for cell analysis

mgr Kriti Awasthi
Jagiellonian University

17:05 Simultaneous multi-tracer imaging with the J-PET scanner

mgr Ermias Yitayew Beyene
Jagiellonian University

17:10 Study of the CPT symmetry with the J-PET scanner

mgr Neha Chug
Jagiellonian University

17:15 Developing positronium imaging for the in-vivo liver cancer diagnosis

mgr Manish Das
Jagiellonian University

17:20 Developing cost-effective computed tomography and cross-stage platform for TB-JPET/CT

mgr Tevfik Kaplanoglu
Jagiellonian University

17:25 Study of Quantum Entanglement with the J-PET scanner

mgr Deepak Kumar
Jagiellonian University

17:30 Precision studies of the orthopositronium lifetime with the J-PET detector

mgr inż. Justyna Mędrala-Sowa
Jagiellonian University

17:35 Developing positronium imaging for the proton therapy enhancement

mgr Wiktor Mryka
Jagiellonian University

17:40 Studies of antimatter gravitation using J-PET modules and AEGIS at CERN

mgr Piyush Pandey
Jagiellonian University

17:45 Developing PET and Positronium imaging for total-body PET systems

mgr Szymon Parzych
Jagiellonian University

17:50 Blood clots structural characteristics with positronium

mgr inż. Simbarashe Moyo
Jagiellonian University

17:55 Study of multi-photon decays of positronium with J-PET detector

mgr Pooja Tanty
Jagiellonian University

18:00 Estimating NEMA characteristics for the total-body J-PET scanner

mgr Keyvan Tayefi Ardebili
Jagiellonian University

18:05 Precision study of the CP symmetry using J-PET scanner

mgr Kavya Valsan Eliyan
Jagiellonian University

18:10 TB-J-PET CT-less image reconstruction

mgr Satyam Tiwari
Jagiellonian University

18:30 -- 20:30 Dinner

Trattoria Rialto,
Raciborska 17, 30-384 Kraków