4th Jagiellonian Symposium on Advances in Particle Physics and Medicine



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Key talk: Interaction of positron and positronium with gases in liquids and development of a new positron beam for advancing such fundamental studies

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Through the last decades positron and positronium annihilation have been powerful tools for fundamental studies in physics, chemistry, and matter. Now the recent development of novel type of positron emission tomography (PET) at the Jagiellonian University in Krakow stimulates great interest to understand positron/positronium interactions with gases dissolved in liquids and urges new research avenues in positron/positronium science. In this talk I will give an example of such research and describe the development of a new beam to advance such fundamental studies of positron and positronium in a wide range of science. I will discuss how it can be used to advance our understanding of positron and positronium physics related to medicine. Lastly, future perspectives of positron and positronium applications in medical diagnostics and therapeutic will be given.

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Presenter: Prof. SELIM; BOWLING GREEN STATE UNIVERSITY, USA, Farida **Session Classification:** Session 1