The Warsaw Doctoral School in Natural and Biomedical Sciences and
the Institute of Physics PAS cordially invites you to a **SPOTLIGHT TALK**

Toward Quantum Solitons: Classical Solitons

given by

Prof. Jarah Evslin

Institute of Modern Physics, Chinese Academy of Sciences

on 13th August 2024, 10:30 at the IF PAN Auditorium
Duration: 90 min + question time

The event will be available on ZOOM also, at this link

All Warsaw-4-Phd students (and others) very welcome!

Abstract of the talk:

Solitons show up in many fields of physics from the monopoles and models of nucleons in strong interactions, to conducting plastics and novel memory storage devices. However, solitons are largely understood using classical physics. It is widely believed that quantum mechanics qualitatively changes some of their properties, for example causing some to quickly decay. We will describe a new method which allows for an efficient, reliable and complete treatment of solitons in quantum physics.

In the first lecture, classical solitons will be introduced. We will give a brief introduction to different kinds of solitons: kinks, vortices, monopoles and domain walls. We will describe them using classical field theory and note some of their applications in classical and quantum physics.

This event is supported by the Polish National Agency for Academic Exchange, grant no. BPI/STE/2021/1/00034/U/00001

INSTITUTE OF PHYSICS
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Jarah Evslin got his Bachelor of Science degree in Math and Bachelor of Science degree in Physics from Caltech in 1997, he got his PhD degree in Physics from the University of California Berkeley in 2001. After that he did his postdocs in Pisa, Trieste and Brussels. Later he became an adjunct professor at the University of Pisa.

Since 2014, he is a professor at the Institute of Modern Physics, Chinese Academy of Sciences. He is the coordinator of the International Science Development Team for Fundamental Physics at the Thirty Meter Telescope. He published 112 papers in refereed journals, plus 1 book chapter and 7 proceedings. In the past, he has studied dark matter, dark energy, string theory, black holes and neutrino physics. For the past 5 years, his research has worked towards understanding why gluons and quarks are always confined in nuclei.

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