

A seminar "Between Physics and Biology and Medicine"

Department of Medical Physics and Department of Experimental Particle Physics and Applications

Institute of Physics M. Smoluchowski of the Jagiellonian University

„Quasi-Elastic Neutron Scattering“

dr Piotr Żołnierczuk

Neutron Scattering Division, Oak Ridge National Laboratory, Tennessee, USA

Neutron scattering is a powerful experimental technique with broad applications in condensed matter physics, soft matter, chemistry, biology and engineering. Its usefulness stems especially from the ability to “see” the light nuclei. I will provide a general overview of various neutron scattering techniques with a focus on quasi-elastic neutron scattering (QENS). I will also discuss several examples of biological systems that have been studied with QENS.

About the Speaker:

Dr Piotr Żołnierczuk received PhD in Physics from Jagiellonian University working on pion production in proton-proton collisions. He moved to the US and performed experiments at TRIUMF, Thomas Jefferson National Laboratory and Brookhaven National Laboratory. Since 2008 he has been working at the Spallation Neutron Source, Oak Ridge National Laboratory where he is using neutron spin echo spectroscopy to study the dynamics of nanoscopic systems like polymers and biological membranes.

Date: 12 OCTOBER 2023, 2:30 pm

Place: B-2-50, FAIS, Łojasiewicza 11

