СОФИЙСКИ УНИВЕРСИТЕТ
„СВ. КЛИМЕНТ ОХРИДСКИ“

ФИЗИЧЕСКИ ФАКУЛТЕТ

SOFIA UNIVERSITY
St. KLIMENT OHRIDSKI

FACULTY OF PHYSICS

FACULTY SEMINAR

Venue: 21.12.2022 (Wednesday), 17:00 h,
in person: JINR Info center in the Faculty of Physics and Zoom

Zoom Meeting:

https://us02web.zoom.us/j/83298478841?pwd=UXVoaFhSR0hsQXZZeUtxL1hVanpKUT09

Meeting ID: 832 9847 8841
Passcode: 902885

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Neutrons in the Life Science

Scientific research in general and life sciences have always benefited from the development of large-scale scientific infrastructures. Starting with the first X-ray tubes - coincidently around the same time as Alzheimer's disease was identified - and all the way to modern synchrotron radiation sources, neutron sources, and powerful lasers, research approaches based on nuclear physics have been playing a significant role in biology-related investigations.

The peculiar properties of neutrons, power of synchrotrons, innovations in optical spectroscopy, including Raman, have their own niche in studies of the chemical composition and structure of condensed matter that possesses a rather high level of disorder - disorder that is believed to be one of the foundations of life.

At the Frank Laboratory of Neutron Physics (FLNP) of the Joint Institute for Nuclear Research (JINR) much attention is paid to life science research for more than half a century now. Owing to advances in research approaches, there is now a better understanding of the relevant mechanisms for health protection and even its recovery. Establishing the regular monitoring of environmental pollution helps to alleviate its negative impact on people and the planet. The examples of notable results obtained by scientists at the FLNP, some of which are presented in this talk, demonstrate the importance of taking a closer and more detailed look at life sciences through the prism of radiation.