BOOK OF ABSTRACTS

ADVANCES
IN SOLID STATE PHYSICS
AND NEW MATERIALS

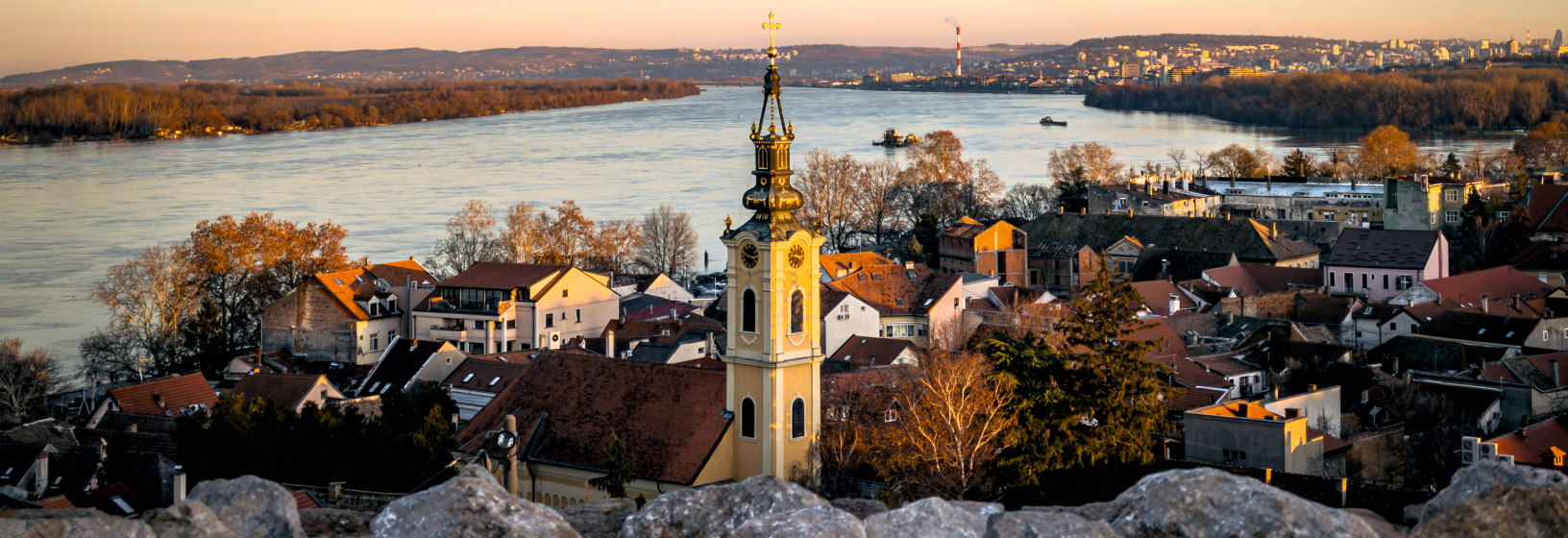
ДОСТИГНУЋА У ФИЗИЦИ ЧВРСТОГ СТАЊА И НОВИХ МАТЕРИЈАЛА

30 година Центра за физику чврстог стања и нове материјале Института за физику у Београду

ADVANCES IN SOLID STATE PHYSICS AND NEW MATERIALS

30 years of the Center for Solid State Physics and New Materials at the Institute of Physics Belgrade

19 - 23 May 2025
Belgrade, Serbia



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Advances in Solid State Physics and New Materials

The international conference **"Advances in Solid State Physics and New Materials"** is being organized to celebrate the 30th anniversary of the **Center for Solid State Physics and New Materials** at the **Institute of Physics Belgrade (IPB)**. The conference, subtitled **"30 Years of the Center for Solid State Physics and New Materials at the Institute of Physics Belgrade"**, will take place from **May 19–23, 2025**, as a joint endeavor of the **Department of Natural Sciences of the Serbian Academy of Sciences and Arts (OTN SANU)** and the **Center for Solid State Physics and New Materials, IPB**.
The event commemorates the founding of the Center on May 24, 1995, and highlights its recognition as one of the first centers of excellence in nanoscience and nanotechnology in Serbia. The Center has also been acknowledged as a European center of exceptional value for applications of optical spectroscopy in physics, materials science, and environmental protection (OPSA). The conference is also part of the activities of the **HIP-2D-QM project**, conducted under the Horizon ERA Chair call, independently executed by researchers at the Center.

The program will cover a broad spectrum of topics in solid-state physics, including:

- New quantum materials
- Strong correlations
- Ordering phenomena and phase transitions
- 2D materials
- Topology
- Magnetism
- Unconventional superconductivity
- Semiconductors

Conference venue:
Serbian Academy of Sciences and Arts (SANU), Knez Mihailova 35, 11000 Belgrade, Serbia
Conference website: https://www.advances25.solidstate.ipb.ac.rs/

Advances in Solid State Physics and New Materials 2025 is organized by Center for Solid State Physics and New Materials at the Institute of Physics Belgrade (http://solidstate.ipb.ac.rs/) and Serbian Academy of Sciences and Arts (http://www.sanu.ac.rs/). Advances 2025 is organized with support of European Union's Horizon Europe research and innovation programme (https://research-and-innovation.ec.europa.eu/) under grant agreement No. 101185375 and Science Fund of the Republic of Serbia (https://fondzanauku.gov.rs/).

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ESUO-Serbia Section of Optical Society: Ten Years of Activities

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Abstract. ESUO-Serbia is a section of Optical Society of Serbia established in 2016 after the invitation by Prof. Dr. Dr. h.c. Ullrich Pietsch, the president of European Synchrotron and Free Electron Laser User Organization (ESUO). Although the Serbian synchrotron user community is rather small, it includes 30 to 35 active researchers, the research topics are diverse ranging from atomic and molecular physics and material sciences to chemistry and biology. During 2019 the first regional meeting of ESUO had been organized in Belgrade as a satellite meeting of The International School and Conference on Photonics. From the beginning of its activities, ESUO-Serbia maintains the web site [1] that includes the latest news from the community, papers published and projects performed by domestic researchers. Also, it provides links to the relevant documents and events. Some of our excellent researchers have been recruited to be beam-line scientists in such known synchrotron facilities as Diamond, DESY, ALMA and SOLEIL In 2024 the NEPHUEWS project [2] has been successfully launched and Serbia has been chosen among eight countries to be in the front line of beneficiaries.

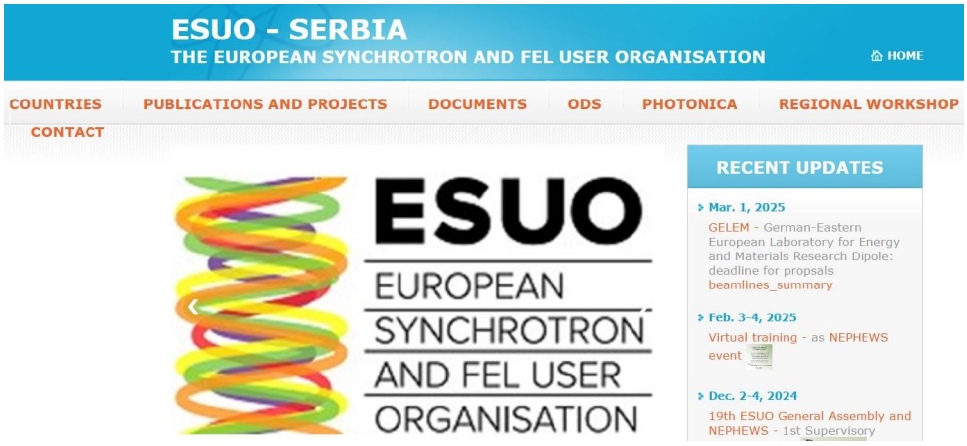

FIGURE 1. The ESUO-Serbia web page http://uranus.ipb.ac.rs/~esuo-serbia/index.html .

REFERENCES

1. http://uranus.ipb.ac.rs/~esuo-serbia/index.html
2. https://beamtime.eu/programmes-support/ .

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1. Advances in Solid State Physics and New Materials

a) Физика чврстог стања - Апстракти