# FACULTY OF MATHEMATICS AND PHYSICS, UNIVERSITY OF LJUBLJANA



#### **MEET FMF**

The Faculty of Mathematics and Physics (FMF) at the University of Ljubljana is a leading academic and research institution in Slovenia, dedicated to advancing knowledge in mathematics, physics, and nuclear engineering. The faculty plays a crucial role in scientific education, research, and innovation, fostering excellence through interdisciplinary collaboration and international partnerships.





MORE ABOUT FMF www.fmf.uni-lj.si

#### **OUR PROJECTS AND EXPERTISE**

FMF conducts advanced research and education in reactor physics, neutron transport, and thermal-hydraulics, contributing to nuclear safety and reactor optimization.

#### **FMF AND SMRS**

The Faculty of Mathematics and Physics (FMF), University of Ljubljana, actively contributes to nuclear energy research and education, including topics relevant to Small Modular Reactors (SMRs). Through its **Nuclear Engineering Master's program**, FMF educates future experts in reactor physics, nuclear safety, and radiation protection. Faculty researchers engage in projects on reactor modeling, neutron transport, and thermal-hydraulics, essential for SMR development. FMF collaborates with nuclear industry stakeholders, regulatory bodies, and international organizations to advance nuclear technology. By **fostering innovation and workforce development**, FMF plays a key role in supporting Slovenia's energy transition and potential SMR deployment.



"Through cutting-edge research and education, the Faculty of Mathematics and Physics at the University of Ljubljana is shaping the future of nuclear energy. By advancing reactor physics, safety analysis, and workforce development, we support the innovation and deployment of Small Modular Reactors for a sustainable energy future."

## WHO WE ARE RESEARCH, EDUCATION & TRAINING



#### OUR KEY STAKEHOLDERS

**ENERGY SECTOR (GENERAL)** 

SMR ADVOCATES & PROMOTORS

**DECISION MAKERS** 

REGULATORS

RESEARCH, EDUCATION & TRAINING

**CIVIL SOCIETY** 

FINANCIAL INSTITUTIONS & INVESTORS

**INDUSTRY** 

EU & INTERNATIONAL STAKEHOLDERS

**NUCLEAR TECHNOLOGY** 

### FMF IN THE EUROPEAN INDUSTRIAL ALLIANCE ON SMRs



TWG2: Technology and R&D&I



**TWG5: Public Engagement** 



TWG4: Skills



TWG6: Nuclear Safety and Safeguard

The Faculty of Mathematics and Physics (FMF), University of Ljubljana, actively supports nuclear energy advancements, including Small Modular Reactors (SMRs), through research, education, and collaboration. Being a member of the European Industrial Alliance on SMRs, FMF contributes to related areas in the following ways:

#### • Nuclear Engineering Education & Workforce Development

- FMF offers a Master's program in Nuclear Engineering, preparing experts in reactor physics, nuclear safety, and radiation protection.
- Collaborates with industry and regulatory bodies to ensure a skilled workforce for future SMR deployment in Slovenia and beyond.

#### • Research & Innovation in Nuclear engineering

 Conducts neutron transport modeling, thermal-hydraulics simulations, and reactor safety assessments, crucial for SMR design and optimization.

#### • International Collaboration & Policy Support

• Contributes to discussions on Slovenia's future energy mix, highlighting the role of SMRs in sustainable energy solutions.



Luka Snoj



) <u>luka.snoj@fmf.uni-lj.si</u>

