

Joint ICTP-IAEA School on AI for Nuclear, Plasma and Fusion Science



22 - 26 May 2023
An ICTP - IAEA Meeting
Trieste, Italy

Further information:
<http://indico.ictp.it/event/10174/>
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The event aims to provide young researchers from both developed and developing countries with critical skills related to artificial intelligence/machine learning (AI/ML) and computational physics in nuclear, plasma and fusion science.

Description:

The use of AI systems has had significant impacts in science and technology in recent years, promising to speed progress towards reaching the Sustainable Development Goals by 2030. These systems for learning and producing cognitive tasks leading to prediction and decision-making can similarly accelerate development in nuclear, plasma and fusion science.

In nuclear and atomic data evaluation and compilation, AI-driven research focuses on the automation of the nuclear data pipeline (e.g., analysis and assessment of experimental data). Within the nuclear physics community, AI and ML methods are applied to data analysis and theoretical modelling to improve scientific understanding and to increase the efficiency of data processing and management.

AI and ML have proven highly effective in addressing challenging problems in plasma and fusion science domains of tokamak disruption prediction, control of plasma equilibria, etc.

Topics:

- Probabilistic methods for nuclear data
- AI and algorithm development for data analysis in:
 - Nuclear physics research
 - Plasma science, and
 - Fusion science
- Ethics of AI in science
- ML workshops for hands-on training

Directors:

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Local Organiser:

R. KAISER, ICTP, ITALY

How to apply:

Online application:
<http://indico.ictp.it/event/10174/>

Female scientists are encouraged to apply.

Grants:

A limited number of grants are available to support the attendance of selected participants, with priority given to participants from developing countries. There is no registration fee.

Deadline:

12 March 2023



The Abdus Salam
**International Centre
for Theoretical Physics**
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