



**amU**  
Aix Marseille Université



**MTR**

**FUELS**

**TOURS**

**DEVICES**

**MATERIALS**

**JHR**  
**ADVANCED**  
**SCHOOL**

**MODELLING**

**INSTRUMENTATION**

**DATA**

**2<sup>nd</sup> Edition**  
**13 - 17 October 2025**  
**AMU, Campus St. Jérôme**  
**Marseille, France**





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## HISTORY

The Jules Horowitz Reactor (JHR) Project began more than thirty years ago, with a plan to build a modern Materials Testing Reactor (MTR) which would expand the diminishing international infrastructure for investigating radiation effects in materials of all kinds. From the outset, the JHR was developed within a broad European partnership, which later expanded into a wider international collaboration. Over the years, JHR Consortium Members, through dedicated Working Groups, have fostered the growth of a large research community focused on identifying ways in which JHR can be used to meet the needs of research, development and industrial activity. This feeds into the design of JHR's experimental capabilities, and the Consortium's implementation of these designs, some of which are novel and unique to JHR. The MTR experiments will produce a wealth of data and the JHR Consortium, in association with the EU partnership CONNECT-NM, is also interested in addressing data organization within the nuclear field, enhancing the efficiency and accessibility of both existing databases and future databases to which JHR's users will contribute.

## The JHR Advanced School

is a short but intensive educational event to introduce MTRs to a new audience. The 1<sup>st</sup> school was arranged with success in 2019 and calls for a new edition. The objective of the 2<sup>nd</sup> edition organized by **UNIBO, AMU, CEA, the JHR consortium and CONNECT-NM** is to engage and prepare young researchers, encouraging them to explore the opportunities offered by future JHR experimental activities and to ensure their results are organized and presented to the maximum benefit of the whole nuclear community.

## TOPICS

- **MTR evolution and the JHR Project**
- **Goals for the coming decades: nuclear material and fuel qualification, ageing, incidental conditions**
- **The JHR and related technologies**
- **Computational and modelling tools**
- **From theory to experiment and instrumentation in a MTR environment: problem setting and problem solving**
- **Experimental data organization and management as a continuous learning activity**
- **Case studies**

## AND

The trainees will have the opportunity to interact with members of three JHR working groups on fuels, materials and technologies and have the opportunity to visit the JHR construction site at CEA Cadarache and the Joint LIMMEX Lab (AMU-CEA-CNRS) at AMU.

## INFORMATION

**No registration fees**

**Application deadline: 31 July 2025**

**Selection of 25 participants (JHR Consortium members, CONNECT-NM network...)**

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