

Cargèse April 20-26, 2025

# TOTEMIC Training school



TOTEMIC is organised and funded by



INSTITUT  
d'ÉTUDES  
SCIENTIFIQUES  
DE CARGÈSE



UNIVERSITÉ  
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N A M e

GDR Nanomaterials for Energy Applications



Funded by  
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# TOTEMIC Session Planning

	Monday 21	Tuesday 22	Wednesday 23	Thursday 24	Friday 25
<b>Morning 1</b>	Arrival	Pr Silvana Botti	Pr Kevin Rossi	Pr. Dr Pascal Friederich	Pr Ole Martin Løvvik
<b>Morning 2</b>	Group meeting	Pr James Kermode	Ass. Pr. Alexandre Nominé	Pr. Dr Pascal Friederich	Pr Katerina Christofidou & Dr. Joshua Berry
<b>Lunch break</b>					
<b>Afternoon 1</b>	Welcome	Dr Arthur France-Lanord	Round table	Dr. Ing. Ozlem Ozcan	Open Discussions
<b>Afternoon 2</b>	Pr Michael Eikerling	Dr Roberta poloni	Free time	Dr Alessio Comisso	Wrap-up

# Session titles

## Monday April, 21 – Morning

- **Group meeting**

## Monday April, 21 – Afternoon

- **Welcome**
- **Pr Michael Eikerling** ; “Accelerating Energy Materials (from Idea to Integration) with Theory, Computation”

## Tuesday April, 22 – Morning

- **Pr Silvana Botti** ; “Application of machine learning to computational materials design”
- **Pr James Kermode** ; “Multiscale Materials Modelling Spanning the Electronic and Atomistic Scales with Scientific Machine Learning”

## Tuesday April, 22 – Afternoon

- **Dr Arthur France-Lanord** ; “Fast molecular dynamics at ab initio precision using machine-learned inter-atomic potential”
- **Dr Roberta Poloni** ; “Artificial Neural Network-Based Density Functionals”

## Wednesday April, 23 – Morning

- **Pr Kevin Rossi** ; “Machine learning for materials meets sustainability and circularity”
- **Ass. Pr. Alexandre Nominé** ; “AI and Sustainability as drivers for the discovery of new Materials for for the Green and Digital Transitions”

## Wednesday April, 23 – Afternoon

- **Round table & Poster session**

# Session titles

## Thursday April, 24 – Morning

- **Pr. Dr Pascal Friederich** ; “AI and data in materials acceleration platforms - Adaptive learning and external knowledge”

## Thursday April, 24 – Afternoon

- **Dr. Ing. Ozlem Ozcan** ; “Workflow solutions for transforming a legacy lab to a MAP via automation of data analysis and machine learning-assisted design of experiments”
- **Dr Alessio Comisso** ; “Harnessing AI: Transformative Trends for Research from the Enterprise Perspective”

## Friday April, 25 – Morning

- **Pr Ole Martin Løvvik** ; “Materials design for tailored properties; advantages of using high throughput and screening techniques”
- **Pr Katerina Christofidou & Dr. Joshua Berry** ; “Harnessing the Power of Large Language Models for Materials Science and Engineering”

## Friday April, 25 – Afternoon

- **Open discussions**
- **Wrap-up meeting**