

Free webinar

November  
**15th**

Zoom platform

# Novel high performance materials & components

Energy intensive industries require a radical transformation of their production processes to reach carbon neutrality by 2050. Future low carbon technologies and processes should address **fluctuating and extreme conditions, such as high temperature or corrosive environments, materials and components that will need to be able to be sustained**. In the same way, they also need to be designed for high-energy performance.

This free webinar organized within the P4P Partnership of A.SPIRE aims at presenting the main advances achieved within some of the projects aligned with the LC-SPIRE-08-2020 work-topic.

[registration](#)



## Programme

GMT +2

10:00

**Welcome and opening**

10:05

**New generation of refractory stainless steels for the industry. The effect of cooling rate during solidification on high temperature properties**  
**HIPERMAT**

Fernando Santos / Emili Barbarias (*AZTERLAN Metallurgy Research Centre*)

10:25

**Rapid development of new materials through the use of a combined approach of generative and physics-based models**  
**ACHIEF**

Andrea Gregores Coto (*R&D Robotics & Automation*)

10:45

**Material Design for Additive Manufacturing: Enablers in Industrial Sustainability**  
**TOPAM**

Ulrich Krupp (*IEHK, RWTH-AACHEN UNIVERSITY*)

11:05

**Enabling the potential of Ceramic Matrix Composites for energy-intensive industries**  
**CEM-WAVE**

Roberto D'Ambrosio (*University of PISA*)

11:25

**Novel Cr-based alloys strengthened by intermetallics for structural and coating applications at high-temperatures >800°C**  
**COMPASsCO2**

Kan Ma (*University of Birmingham - UoB*)

Mathias Galetz (*DECHEMA-Forschungsinstitut - DFI*)

11:45

**Development of metal coatings by data/physics-based modelling of Compositionally Complex Alloys**  
**FORGE**

Alvise Bianchin (*MBN nanomaterialia s.p.a.*)

11:55

**Questions and discussion**

### Participant projects



### Contact and more information



**Fernando Santos**

AZTERLAN Metallurgy Research Centre  
HIPERMAT Project coordinator

[contact](#)