



## FRANCE & PORTUGAL

25 years of collaboration

4-5 July 2024

Lorient, France & online event

# Future trends in virtual sheet metal forming

Université Bretagne Sud - Universidade de Coimbra - Universidade de Aveiro

## The context

It all started a long time ago, when three PhD students, Luis, Pierre-Yves and Sandrine, were buddies in the same research unit GPM2, in Grenoble, France. Some years later, they met again at the Numisheet international conference held in Besançon in **1999**. And here we are, **25 years later**, with more partners, projects, joint PhD supervisions, and a shared interest in material forming and sheet metal mechanical behavior.

This event is a celebration to this long, fruitful, and excellent collaboration between 3 universities (Bretagne Sud, Coimbra and Aveiro) and 3 research units (IRDL, CEMMPRE and TEMA).

## Here is a glimpse of the program

- A short history of 25 years of collaboration.
- Scientific talks related to plasticity model calibration with Artificial Intelligence, hot forming, challenges in virtual sheet metal forming, a dedicated numerical tool for virtual forming, hydraulic bulging for material characterization and virtual additive manufacturing
- And a distinguished guest: **Prof Frédéric Barlat**, emeritus professor at Postech, Republic of Korea, and visiting professor at Université Bretagne Sud, had also a long-term collaboration with Universidade de Aveiro.
- PhD students will share their topic in a "MyPhD180" way.
- A panel discussion with doctors, who did their PhD work under a joint supervision between France and Portugal, will share their experience.

## How to attend the event

The French-Portuguese team will be in Lorient, France. And the event can be attended online.

**Interested?** Send an email to [sandrine.thuillier@univ-ubs.fr](mailto:sandrine.thuillier@univ-ubs.fr), you will receive the information for the connection a few days before the event.

## Detailed program

### Thursday 4 July

From noon	Welcome and lunch*	
2 pm	Luis Menezes, Pierre-Yves Manach, Sandrine Thuillier	Some history about the collaboration
2:45 pm	Antonio Andrade-Campos	AI: from model calibration to model discovery
3:30 pm	Hervé Laurent	Hot forming: experiments and modelling
4:15 pm	Coffee break*	
4:45 pm	Marta Oliveira	Challenges in numerical simulation of sheet metal forming
5:30 pm	Concluding comments on day 1	
6 pm	End of day 1	
8 pm	Dinner*	

### Friday 5 July

9 am	Welcome and coffee*	
9:15 am	Frédéric Barlat	Thermodynamics and modelling of plasticity
10 am	José Luis Alves	Contribution of DD3 family to the learning and teaching of plasticity and of metal forming technologies: a well-succeed curricular unit
10:45 am	Coffee break*	
11:15 am	Lisa Germain	Hydraulic bulge test for material characterization
12 am	Diogo Neto	Virtual Additive Manufacturing: laser-powder bed fusion, from meso-scale to macro-scale
12:45 am	Lunch*	
2 pm	Mafalda Gonçalves, Thibault Barret, Nivesh Gautam, Bruno Marques, Edmundo Sergio, Pedro Costa, Carlos Andrade	MyPhD180
2:45 pm	Jérémy Coër, Nelson Souto, Vasco Simões, João Martins	Panel discussion. Moderator: Abhishek Kumar
4:30 pm	Concluding comments	
5 pm	End of day 2	
8 pm	Dinner*	

\*For the French-Portuguese team only.

**For more information** on the universities and research units:

- Université Bretagne Sud: <https://www.univ-ubs.fr/>, IRDL <https://www.irdl.fr/>
- Universidade de Coimbra: <https://www.uc.pt/>, CEMMPRE <https://www.uc.pt/cemmpre/>
- Universidade de Aveiro: <https://www.ua.pt/>, TEMA <https://www.ua.pt/en/tema/>



Centre for Mechanical Technology and Automation (TEMA)



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