# Registration

For on-line registration, go to the DYMAT Winter School website:

https://dymat-ws-2023.sciencesconf.org

#### **Publication**

- 2-page abstract or 6-page full length paper for oral lecture or poster presentations are invited.
- Word and Latex templates are available on the Website.

# **Preliminary Schedule**

5 Plenary lectures and 32 oral presentations.

Sunday: Start of the WS

	Monday	Tuesday	Wednesday	Thursday	Friday	
7:30			Breakfast			
8:30	Lecture 1	Lecture 2	Lecture 3	Lecture 4	Lecture 5	
10:00	Break	Break	Break	Break	Break	
10:20	Session 1	Session 3	Session 5	Session 7	Session 9	
12:20			Lunch			
13:30	Private time					
17:50	Session 2	Session 4	Session 6	Session 8	End	
19:20	End			of the		
19:30	Dinner			WS		
20:30	Poster session					

### Contact

Pr. Pascal FORQUIN (3SR)

pascal.forquin@univ-grenoble-alpes.fr

Laboratoire 3SR, 1270 rue de la Piscine 38400 Saint-Martin d'Hères, France Tel: +33 4 76 82 52 48

#### **Accommodation**

The venue provides both meals (including breakfasts, lunches and dinners on conference meal plan) and single or double rooms for each participant.

#### **Venue**

Centre Paul-Langevin: rue du coin, 73500 Aussois, France *Tel: +33 4 79 20 33 86* Fax: +33 4 79 20 30 44

Email: aussois@caes.cnrs.fr

# By plane:

Geneva and Lyon-Saint-Exupery Airports are 2 hours drive from Aussois. Grenoble Alpes Isère and Turino Airports are about 1 hour drive from Aussois.

# By train:

Modane trainstation is located at 8 km from centre Paul-Langevin.

## **Bus station:**

Transdev, +33 8 20 32 03 68, <u>www.altibus.com</u>

# By car:

Chambéry (France) => A43 motorway to Modane (Maurienne vallee) => Exit 30 Le Freney => Aussois

Turino (Italy) => A43 motorway to Modane (Maurienne vallee) => Exit 30 Le Freney => Aussois.



## **DYMAT Winter School 2023**

Experimental testing and modelling of materials at high strain-rates



Jan. 29<sup>th</sup> - Feb. 3<sup>rd</sup> 2023
AUSSOIS
France

# Scope

The dynamic behavior of materials is present through a large number of applications such as impact loadings, blasting and detonation, modern production processing, brittle failure of solids and structures... In such cases the material behavior is no longer quasi-static and the dynamic behavior of the materials needs to be properly accounted for. Also, constitutive models used in numerical simulations require an identification of the material behavior on an appropriate range of loading-rate. Experimental testing methods are also developed to analyze the damage mechanisms and the deformation modes in view of improving the prediction capabilities of numerical tools.

This winter school aims at gathering PhD students as well as senior researchers studying experimentally, developing models and numerical approaches to improve the knowledge in the area of the material behavior under dynamic loading.

# Main winter school themes

## Dynamic testing of materials

Hopkinson Pressure Bar, Impact test, Plate impact, Drop tower, Shock tube, High-speed jack...

### Damage and failure at high strain-rates

Micro-plasticity, Tensile damage, Shear failure, Multiple fragmentation, Pore collapse, Crushing...

#### Modelling and numerical methods

Constitutive laws, Finite-element methods, Discreteelement methods, SPH, Linear/non-linear fracture mechanics...

## **Applications**

Crashworthiness, Terminal ballistics, Blast, Natural risks, Machining, Industrial processes...

## Winter school location

The conference will be hosted by the Centre Paul-Langevin Aussois, France. The conference center is located in the French Alps. The holiday village located in Aussois is a small Savoyard village facing south at the gates of the Vanoise National Park at an altitude of 1500 m.

## Practical information:

https://www.caes.cnrs.fr/sejours/centre-paullangevin-3-2/



# **Important dates**

**September 20<sup>th</sup>, 2022:** Receipt of 2-page abstract

#### **ONLINE SUBMISSION**

October 1<sup>st</sup>, 2022: Acceptance notification for oral or poster presentation

**November 1<sup>st</sup>, 2022:** Receipt of final 6-page full-length contribution (optional)

December 1<sup>st</sup>, 2022: End of registration

#### Winter school fees

The WS fees include the accommodation in single or double room, 5 breakfasts, 5 lunches, 5 dinners, the coffee-breaks and administrative fees.

(Including VAT)	Single room	Double room
5 days WS	571.26 euros	510.66 euros

Participants have to pay their registration fees directly to Paul Langevin center

Purchase order should be sent by participants about 60 days before WS start to confirm their registration

### **Scientific Committee**

#### The DYMAT Governing Board:

Pr. N. Bahlouli, University of Strasbourg, France

Dr. E. Buzaud, CEA, Bordeaux, France

**Pr. E. Cadoni**, University of Applied Sciences and Arts of Southern Switzerland. Mendrisio. Switzerland

Dr. A. Cosculluela, CEA, Bordeaux, France

H.D.R. H. Couque, Nexter Munitions, Bourges, France

Dr. Y. Demarty, Institut Saint-Louis, France

Pr. P. Forquin, Université Grenoble Alpes, France

Pr. F. Galvez, Universidad Politecnica de Madrid, Spain

**Dr. G. Ganzenmueller**, Fraunhofer Institute for High-Speed Dynamics, Ernst-Mach-Institut, Germany

Pr. M. Hokka, Tampere University of Technology, Finland

**Pr. M. Langseth**, Norwegian University of Science and Technology, Norway

Pr. D. Mohr, ETHZ, Zürich, Switzerland

Pr. L. Peroni. Politecnico di Torino. Torino. Italy

Pr. P. Viot, Arts et Métiers Sciences et Technologies, Bordeaux, France

Pr. P. Verleysen, Ghent University, Belgium

Dr. S. M. Walley. University of Cambridge. United Kingdom

# **Organizing Committee**

The ExperDYN team in 3SR Lab.

Pr. Pascal FORQUIN, Dr. Dominique SALETTI, Dr. Charles FRANCART

Phd students: Julia GENEVOIS, Mushfiq SAPPAY, Luc BREMAUD



