



Program

Sunday, January 29th, Centre Paul-Langevin, 24, rue du Coin, 73500 Aussois, France


15h00	Opening of the centre
18h00	Opening of the WS desk
19h20	Dinner

Monday, January 30th, Centre Paul-Langevin, 24, rue du Coin, 73500 Aussois, France

Time	TITLE	SPEAKER	INSTITUTIONS
7h50	Opening of the WS desk		
8h10	Monday morning – Opening ceremony Pascal Forquin, Univ. Grenoble Alpes, 3SR Lab. (France)		
Monday morning – Invited Lecture 1 Chairmen: Dr. S. Walley and Pr. P. Forquin			
8h20	In-depth Analysis of a Hopkinson Bar Experiment	<u>Pr. Gérard Gary</u>	Ecole Polytechnique
9h50	Coffee break		
Monday morning, session 1 - Dynamic behavior of metals Chairmen: Dr. S. Walley and Pr. P. Forquin			
10h15	An experimental and modelling investigation of Al 6061-T6 response under intense impulsive X-ray radiation	<u>Eric Buzaud</u>	CEA-CESTA
10h40	A laboratory-scale instrumented hammer for intermediate strain rate testing: Application to hot forging of nickel-based superalloys	<u>Julen Agirre</u> , Joseba Mendiguren, Borja Erice, Nagore Otegi, Lander Galdos	Mondragon Unibertsitatea, Basque Foundation for Science
11h05	Static and dynamic in-plane torsion testing of sheet metal	<u>Xavier Colon</u> , <u>Vincent Grolleau</u> , Bertrand Galpin, Christian Roth, Dirk Mohr	ETH Zürich IRDL Ecoles de St-Cyr Coëtquidan
11h30	Multiaxial rate dependent behavior of Titanium alloys	<u>Govind Gour</u> , Yuan Xu, Julian Reed, Nik Petrinic, Antonio Pellegrino	University of Oxford
11h55	Statistical characterization of mechanical behavior of Ti6Al4V and Bayesian calibration of a constitutive model	<u>Charles Francart</u>	3SR - Univ. Grenoble Alpes
12h20	End of the session		
12h25	Lunch		
13h30	Private Time		
Monday afternoon, session 2 - Dynamic behavior of metals Chairmen: Dr. C. Bolis, Dr. C. Francart			
17h50	On the Mechanical Properties of Tungsten Heavy Alloys used in Kinetic Energy Impactors	<u>Christian Roth</u> , Teresa Frasn, Dirk Mohr	ETH Zürich Institut Saint-Louis
18h15		<u>Nick Paris</u>	iX-Cameras
18h30		<u>Martin Hessing</u>	Amotronics
18h45	End of the session		
18h50	Cocktail		
19h30	Dinner		
20h30	Special talk: The Space Shuttle Columbia Last Mission	<u>Pr. Amos Gilat</u>	The Ohio State University




Tuesday, January 31st, Centre Paul-Langevin, 24, rue du Coin, 73500 Aussois, France

Time	TITLE	SPEAKER	INSTITUTIONS
Tuesday morning – Invited Lecture 2 <i>Chairmen: Pr. A. Gilat, Pr. V. Grolleau</i>			
8h20	An Introduction to Machine-learning for Modeling the Dynamic Behavior of Materials and Structures	<u>Pr. Dirk Mohr</u>	ETH Zürich
9h50	Coffee break		
Tuesday morning, session 3 - Plasticity and Fracture <i>Chairmen: Pr. A. Gilat, Pr. V. Grolleau</i>			
10h15	Rate-Dependent Stress-Strain Response of Polypropylene: Robot-Assisted Testing and Neural Network Modeling	<u>Benoit Jordan</u> , Dirk Mohr	ETH Zürich
10h35	Neural Network Model Describing the Response of Tubular Structures Subject to Impact Loading	<u>Emmanouil Sakaridis</u> , Dirk Mohr	ETH Zürich
10h55	Neural Network Based Temperature and Strain Rate Dependent Plasticity and Fracture Modelling	<u>Xueyang Li</u> , Christian Roth, Dirk Mohr	ETH Zürich
11h15	SHPB experiments on plate-lattice materials made through selective laser melting: experiments & analysis	<u>Paul Meyer</u> , Thomas Tancogne-Dejean, Li Xueyang, Christian C. Roth, Dirk Mohr	ETH Zürich
11h35	Micro-tensile experiments of metals covering a wide range of stress-states	<u>Thomas Beerli</u> , Christian Roth, Dirk Mohr, Vincent Grolleau	ETH Zürich IRDL
11h55	Enhance crashworthiness of 3D printed cellular materials (poster introduction)	<u>Mattia Utzeri</u> , Martina Scapin, Marco Sasso, Lorenzo Peroni	Polytechnic University of Marche Polytechnic of Turin
12h20	End of the session		
12h25	Lunch		
13h30	Social event		
Tuesday afternoon, session 4 - Dynamic testing of materials <i>Chairmen: Pr. M. Hokka, Dr. C. Roth</i>			
17h50	The high-rate mechanical properties of wood	<u>Stephen Walley</u> , Philippe Viot	University of Cambridge I2M - Arts et Métiers
18h15	Dynamic Indentation Response of Lithium-ion Batteries: Experiments and Modeling	<u>Thomas Tancogne-Dejean</u> , Vincent Grolleau, Dirk Mohr	ETH Zürich IRDL
18h40	Finite element simulations of dynamic compression of bulk metallic glasses at elevated temperatures using split Hopkinson pressure bar setup	<u>Arun Kamble</u> , Parag Tandaiya	Indian Institute of Technology
19h05		<u>Todd Rumbaugh</u>	Hadland
19h20	End of the session		
19h30	Dinner		




Wednesday, February 1st, Centre Paul-Langevin, 24, rue du Coin, 73500 Aussois, France

Time	TITLE	SPEAKER	INSTITUTIONS
Wednesday morning – Invited Lecture 3 <i>Chairmen: Pr. G. Gary, Dr. C. Bolis</i>			
8h20	The Addition of DIC measurement to the Split Hopkinson Bar Experiment	<u>Pr. Amos Gilat</u>	The Ohio State University
9h50	Coffee break		
Wednesday morning, session 5 - Experimental techniques <i>Chairmen: Pr. G. Gary, Dr. C. Bolis</i>			
10h15	Taylor impact	<u>Stephen Walley</u> , Hervé Couque	University of Cambridge Nexter Munitions
11h40	Laser-shock dynamic loading of innovative materials for beam intercepting devices of particle accelerators	<u>Alberto Morena</u> , Lorenzo Peroni, Martina Scapin	Politecnico di Torino
11h05	Synchrotron X-Ray Diffraction for Investigating High Strain Rate Material Behavior	Matti Isakov, Veera Langi, Lalit Pun, Guilherme Soares, <u>Mikko Hokka</u>	Tampere University
11h30	The dynamic loading stage for the instrumented testing at intermediate strain rates with real-time control of the experiment parameters	<u>Jan Falta</u> , Tomáš Fíla	Czech Technical University, Prague
11h50	Dynamic testing of the UHPC reinforced by steel fibres using SHPB	<u>Křmářová Nela</u> , Fíla Tomáš, Falta Jan, Šleichrt Jan	Czech Technical University, Prague
12h10	End of the session		
12h15	Lunch		
13h30	Private Time		
Wednesday afternoon, session 6 - Dynamic behavior of geomaterials <i>Chairmen: Pr. M. Hokka, Dr. C. Roth</i>			
17h50	Experimental and numerical study of dynamic behaviour of geomaterials under multiaxial confinements	<u>Wanrui Hu</u> , <u>Huachuan Wang</u> , Qianbing Zhang	Monash University
18h15	Considerations on the shear behavior of concrete-rock interfaces under dynamic loading	<u>Menes Badika</u> , Sophie Capdevielle, Matthieu Briffaut, Dominique Saletti	3SR - Univ. Grenoble Alpes Univ. de Lille
18h40	Identification of the dynamic tensile strength and fracture energy of five geomaterials subjected to spalling tests	<u>Mushfiqullah SAPAY</u> , Pascal Forquin	3SR - Univ. Grenoble Alpes
19h05		<u>Pär Gustafsson</u>	Scandiflash AB
19h20	End of the session		
19h30	Dinner		



Thursday, February 2nd, Centre Paul-Langevin, 24, rue du Coin, 73500 Aussois, France

Time	TITLE	SPEAKER	INSTITUTIONS
Thursday morning – Invited Lecture 4 <i>Chairmen: Dr. E. Buzaud, Dr. J.-L. Zinszner</i>			
8h20	Metal Response to Shock Loading: From Microscale to Applications	<u>Dr. Cyril Bolis</u>	CEA-DIF
9h50	Coffee break		
Thursday morning, session 7 - Dynamic behavior of ceramics <i>Chairmen: Dr. E. Buzaud, Dr. J.-L. Zinszner</i>			
10h15	Effects of microstructure on mechanical behavior of multiscale porous alumina stressed up to high strain rates	<u>Quentin Henry</u> , Jean-Benoit Kopp, Louise Le Barbenchon, Philippe Viot, Antonio Coscolluela	I2M - Arts et Métiers CNRS
10h40	Wavy flyer plate test for shockless plate-impact application	<u>Julia Genevois</u> , Pascal Forquin, Jean-Luc Zinszner	3SR - Univ. Grenoble Alpes CEA Gramat
11h05	Dynamic characterisation of two spinel ceramics	<u>Jean-Luc Zinszner</u> , Christophe Coureau, David Lebaillif	CEA Gramat SOLCERA Nexter Systems
11h30	Numerical simulations of the dynamic behavior of porous alumina ceramics	<u>Joane Meynard</u> , Pierre Pradel, Antonio Coscolluela	CEA-CESTA Arts et Métiers - Bordeaux
11h55	Microscopic modeling of plasma sprayed ceramics under dynamic loading with the discrete element method	<u>Vincent Longchamp</u> , Jérémie Girardot, Damien André, Frédéric Malaise, Ivan Iordanoff	CEA-CESTA I2M - Arts et Métiers Univ. de Limoges
12h20	End of the session		
12h25	Lunch		
13h30	Private Time		
Thursday afternoon, session 8 - Numerical modelling <i>Chairmen: Dr. A. Coscolluela, Dr. J.-L. Zinszner</i>			
17h50	Numerical modelling of spalling tests using Discrete Element Method (DEM)	<u>Luc Bremaud</u> , Jérémie Girardot, Frédéric Malaise, Pascal Forquin, Ivan Iordanoff	Institut polytechnique de Bordeaux CEA-CESTA 3SR - Univ. Grenoble Alpes I2M - Arts et Métiers
18h15	Advanced numerical methods for the characterization of materials loaded under extreme conditions	<u>Rafael Arturo Rubio Ruiz</u> , Mikko Hokka, Guilherme C. Soares	Tampere University
18h40	Analysis of damage and deformation processes in hailstones under impact loading: dynamic testing and numerical simulation	<u>Pascal Forquin</u>	3SR - Univ. Grenoble Alpes
19h05		<u>Johannes Hesper</u> , <u>Raphael Opitz</u>	Shimadzu
19h20	End of the session		
19h30	Dinner		



Friday, February 3rd, Centre Paul-Langevin, 24, rue du Coin, 73500 Aussois, France

Time	TITLE	SPEAKER	INSTITUTIONS
Friday morning – Invited Lecture 5 <i>Chairmen: Dr. A. Bracq</i>			
8h20	Composite materials and multi-material assemblies under dynamic stresses at high strain rates	<u>Pr. Michel Arrigoni</u>	ENSTA Bretagne IRDL
9h50	Coffee break		
Friday morning, session 9 - Dynamic behavior of composites <i>Chairmen: Pr. M. Arrigoni, Dr. A. Bracq</i>			
10h15	Mechanical characterisation and constitutive modelling of single layer UHMWPE composite: application to low-velocity impact loading	Thibault Poulet, <u>Anthony Bracq</u> , Yaël Demarty, Pauline Respaud, Jean Beugels, Bruno Bennani, Nadia Bahlouli, Franck Lauro	Institut Saint-Louis University Polytechnique Hauts de France ICube
10h40	Effect of carbon nanotube interlayers on the low velocity impact damage resistance of CFRP composites	<u>Karthik Ram Ramakrishnan</u> , Zhifang Zhang	Bristol Composites Institute
11h05	Response of polymer-based interpenetrating phase composites in impact loads	<u>Nikolaos Karathanasopoulos</u>	New York University
11h30	A novel shear device for testing mineral-bonded composites under high strain-rates	<u>Ahmed Tawfik</u> , Cesare Signorini, Viktor Mechtcherine	Technische Universität Dresden
11h55	End of the session		
12h00	Lunch		
13h00	End of Winter School		