

DynaMAT 2019

PROGRAM

The 13th WORKSHOP
DYNAMIC BEHAVIOR OF MATERIALS
AND ITS APPLICATIONS IN INDUSTRIAL PROCESSES

Venue: University of Cyprus
New Campus, Aglantzias
Social Facilities Building (Room: B010)
Nicosia, CYPRUS
17-19 April, 2019

Last update: 15.04.2019

Wednesday, 17 April	09:00	Registration (Conference Site)
	09:30	Opening ceremony Welcome address by G. Voyiadjis and A. Rusinek Welcome address by Panos Papanastasiou (University of Cyprus)
	Session 1: Impact and perforation <i>Chair: Z. Kowalewski and Z. Nowak</i>	
	09:45	Keynote lecture 1 G. Voyiadjis (Louisiana State University, LSU, USA)
	10:15	An experimental study on the perforation failure of steel plates subjected to a steel impact <i>Masuhiko Beppu, Shori Hamada</i>
	10:35	Influence of the constitutive relation on the response of an armor steel subjected to perforation <i>Pierre Simon, Yaël Demarty, Alexis Rusinek</i>
	10:55	Numerical study of brass properties through perforation tests at different temperatures <i>Maciej Klosak, Tomasz Jankowiak, Alexis Rusinek, Amine Ben Darma</i>
	11:15	Coffee Break
	11:35	Perforation behavior of 304 austenite stainless steel over a wide range of temperatures <i>Bin Jia, Alexis Rusinek, Slim Bahi, Richard Bernier, Raphaël Pesci</i>
	11:55	Ballistic impact behavior on combat helmets using small projectiles <i>Marcos Rodriguez-Millan, Ignacio Rubio, José Antonio Loya, Maria Henar Miguelez</i>
	12:15	Failure mechanisms of RT-PMMA under impact conditions <i>Mat Jali Norazrina, Patrice Longere</i>
	12:35	Numerical model for the impact analysis of polycarbonate projections <i>Josué Aranda-Ruiz, Marcos Rodriguez-Millan, José Antonio Loya, Alexis Rusinek</i>
	12:55	Finishing turning of Haynes 282 in dry conditions <i>Antonio Díaz-Álvarez, Jose Díaz-Álvarez, Jose Luis Cantero, Henar Miguélez</i>
	13:15	Lunch

Session 2. Modelling and numerical simulations <i>Chairs: G. Voyiadjis and R. Pecherski</i>	
14:30	Impact model of two-phase composites <i>Eligiuz Postek, Tomasz Sadowski</i>
14:50	Characterization and modelling of the dynamic behavior of a ballistic ceramic <i>Tristan Camalet, Nadia Bahlouli, Christine Espinosa, Yaël Demarty</i>
15:10	Numerical investigation of damage and failure modes induced in a bilayer configuration subjected to ballistic limit velocity test <i>Yannick Duplan, Pascal Forquin, Dominique Saletti, David Beaujouan, David Houeix</i>
15:30	Perforation analysis of aluminium polyethylene composite structure – Experimental and numerical approach <i>Amine Ben Darma, Tomasz Jankowiak, Alexis Rusinek, Tomasz Lodygowski</i>
15:50	Coffee Break
16:10	Modelling of impacts in a high-hardness armour steel <i>Teresa Frasz, Norbert Faderi, Christian C. Roth, Dirk Mohr</i>
16:30	Impact of repeated shock loads on multi-layer protective structures <i>Leopold Kruszka, Natalia Ovcharova</i>
16:50	Keynote Lecture 2 <i>Dr. Y. Song (Louisiana State University, LSU, USA)</i>
17:30	Tour at the Library, University of Cyprus
18:30	Welcome cocktail

Session 3. Modeling and numerical simulations <i>Chairs: T. Fras and Y. Demarty</i>	
Thursday, 18 April	09:00 Keynote Lecture 3 Prof. R. Pecherski
	09:30 Constitutive model for metals with dynamic strain aging <i>George Voyiadjis, Yooseob Song, Alexis Rusinek</i>
	09:50 The experimental-computational complex for determination deformation curves of viscoplastic materials under high strain rate loading <i>Svetlana Litvinchuk, Anatoly Bragov, Leonid Igmnov, Aleksandr Konstantinov, Andrey Lomunov, Igor Vorobtsov</i>
	10:10 Viscoplastic flow in metallic solids produced by shear banding <i>Ryszard Pecherski</i>
	10:30 Numerical modelling of cracks in PV modules <i>Lamprini Papargyri, Marios Theristis, George E. Georghiou, Panos Papanastasiou</i>
	10:50 Coffee Break
	11:10 Modelling and numerical analysis of structures made of single-crystal materials <i>Leopold Kruszka, Tetiana Berlizova</i>
	11:30 Modelling of deformation of nanocomposite body structures considering different types of nanotube reinforcement under gasodynamic. <i>Leopold Kruszka, Marina Chernobryvko</i>
	11:50 Dynamic compressive strength of the concrete – numerical, experimental and analytical verification <i>Tomasz Jankowiak, Alexis Rusinek, George Voyiadjis</i>
	12:10 Uncertainty estimation and error propagation through data processing of Hopkinson tests by the Monte-Carlo method <i>Charles Francart, Daniel Weisz-Patrault, Gabriel Seisson</i>
	12:30 Identification of effects associated to dynamic testing using SHPB or DICT-Experiment and numerical analysis <i>Zbigniew Kowalewski, Zdzislaw Nowak, Ryszard Pecherski, Tomasz Libura</i>
	12:50 Lunch

	14:00	Departure for Excursion to Limassol & Dinner
	22:00	Return to Nicosia

Friday, 19 April		Session 4. Experiments and simulations <i>Chairs: P. Wood and P. Platek</i>
	09:00	Keynote Lecture 4 Dr M. Bahi (Lorraine University – LEM3, France)
	09:30	A novel experimental technique for quantitative microscale high strain rate testing <i>Rajaprakash Ramachandramoorthy, Jakob Schwiedrzik, Laszlo Petho, Damian Frey, Jean-Marc Breguet, Johann Michler</i>
	09:50	Shock-breaking analysis of cylindrical samples with ring cuts <i>Leonid Igumnov, Anatoly Bragov, Aleksandr Konstantinov, Leopold Kruszka</i>
	10:10	Behaviour of glass woven reinforced thermoplastic laminates under uniaxial loading <i>Tomasz Libura, Zbigniew Kowalewski, Alexis Rusinek, Rodrigue Matadi Boumbimba, Pierre Gérard</i>
	10:30	Composite structure fuselage under internal blast: A cost effective approach <i>Francis Collombet, Thibaut Paccou, Yohan Barbarin, Laurent Crouzeix, Yves A. Davila, Yves-Henri Grunevald, Alain Rouquand</i>
	10:50	Coffee Break
		Session 5. Additive materials and materials <i>Chairs: Masuhiro Beppu and Marcos Rodriguez</i>
	11:10	Microstructure and chosen mechanical properties of Ti-10-2-3 alloy obtained by conventional method and low-cost PM technique <i>Krystian Zygula, Marek Wojtaszek, Tomasz Sieboda, Rafal Stanik</i>
	11:30	Investigation on mechanical properties of additively manufactured lattice structures made from 316L stainless steel <i>Pawel Platek, Judyta Sienkiewicz, Jacek Janiszewski, Fengchung Jiang</i>
	11:50	Geometrical parameters effects on the quasi-static and dynamic mechanical properties of auxetic re-entrant honeycomb structure <i>Laura Delcuse, Slim Bahi, Paul Wood, Ahmad Serjouei, Alexis Rusinek</i>
	12:10	On the energy absorption of open cell metallic foams under dynamic loading <i>Zdzisław Nowak, Marcin Nowak, Ryszard Pecherski</i>
	12:30	Selective laser melting of stainless steel 316L pressure fittings <i>Paul Wood, Gavin Williams, Urvashi Gunpath, Ahmad Serjouei</i>
	12:50	Lunch

	14:00	Announcement of the 14 th Workshop
	14:20	Free time (e.g. visit to Archeological Museum of Nicosia)