

ICNAAM 2020 CONFERENCE



PHYSICAL PARTICIPATION PROGRAM



17 September 2020

Room 1

Session Name:	Dynamical Systems and Their Applications to Advanced Materials, Structures and Technologies	
Chair Name:	Prof. Josef Diblík	
Program:		
Hours	Paper Title	Author
16.00-16.20	On Direct and Inverse Diffusion Problems, Useful in Computational Disease Spread Modelling	<u>J. Vala</u>
16.20-16.40	Approximation of the Fractional Order Transfer Functions with Integer Order Transfer Functions	<u>V. Kárský</u> , M. Tůma, P. Jura
16.40-17.00	Approximation of Second Order Dead Time System Using Generalized Laguerre Functions	<u>M. Tůma</u> , P. Jura
17.20-17.40	Comparison of Dead Time Estimation Methods for Dynamical Systems	<u>M. Tůma</u> , P. Jura

Session Name:	Dynamical Systems and Their Applications to Advanced Materials, Structures and Technologies	
Chair Name:	Assoc. Prof. Jaromír Baštinec	
Program:		
Hours	Paper Title	Author
18.00-18.20	Stabilization of Contact Penetration in the Explicit Method	<u>H. Štekbauer</u> , I. Němec
18.20-18.40	Linear Elastic Fracture Mechanics Comparison of Stress Intensity Factor (Mode I) Using FEM and XFEM	<u>M. Jedlička</u> , M. Alexa
18.40-19.00	Weakly Delayed Linear Two-dimensional Discrete Systems with Constant Coefficients and Multiple Delays	J. Šafařík, <u>J. Diblík</u> , H. Halfarová
19.00-19.20	General Solution to a Weakly Delayed Planar Linear Discrete System, the Case of Real Different Eigenvalues of the Matrix of Nondelayed Terms	H. Halfarová, <u>J. Diblík</u> , J. Šafařík

**Room 1**

Session Name:	Dynamical Systems and Their Applications to Advanced Materials, Structures and Technologies	
Chair Name:	Prof. Jiří Vala	
Program:		
Hours	Paper Title	Author
19.40-20.00	Bounded Solutions of a Triangular System of Two Nonlinear Discrete Equations	<u>J. Baštinec</u> , J. Diblík, E. Korobko
20.00-20.20	Bounded Solutions of Fractional Discrete Equations of Positive Non-Integer Orders	<u>J. Diblík</u> , J. Baštinec

END OF DAY 1



18 September 2020

Room 1

Session Name:	6 th Symposium on Computational Modeling and Experimental Assessment of Transport Processes in Porous Building Materials	
Chair Name:	prof. Zbyšek Pavlík, Ph.D., prof. Oldřich Zmeškal, Ph.D.	
Program:		
Hours	Paper Title	Author
9:00 - 9:20	Thermal Properties of Mortars with Sand/Zeolite Aggregate	<u>Oldřich Zmeškal</u> , Jan Pospisil, Lucie Mrackova, Milena Pavlikova, Zbysek Pavlík
9:20 - 9:40	Magnesia-Based Cement Composites with Recycled Waste Tire Rubber Filler	<u>Adam Pivák</u> , Milena Pavlíková, Martina Záleská, Pavel Reiterman, Danuta Barnat-Hunek, Zbyšek Pavlík
9:40 - 10:20	Enhancement of Structural and Mechanical Properties of Magnesium Oxychloride Cement Due to Graphene Addition	<u>Zbyšek Pavlík</u> , Martina Záleská, Adam Pivák, Ondřej Jankovský, Michal Lojka, Milena Pavlíková
10:20 - 10:40	The Brucite Content Calculation in the MOC Composites	<u>Milena Pavlíková</u> , Adam Pivák, Martina Záleská, Zbyšek Pavlík
10:40 - 11:00	Thermal Properties of Natural Hydraulic Lime-Based Renders with Expanded Perlite	<u>Šimon Marušiak</u> , Milena Pavlíková, Zbyšek Pavlík
11:00 - 11:20	Highly-Reactive Nanoscale MgO Precursor for Fast Synthesis of Magnesium Oxychlorides	Anna-Marie Lauermannová, Michal Lojka, <u>Zbyšek Pavlík</u> , Vilém Bartůňek, Milena Pavlíková, Ondřej Jankovský

**Room 1**

Session Name:	5th Symposium on Mathematical Modelling and Numerical Simulation of Physical and Chemical Phenomena in Porous Materials.	
Chair Name:	Václav Kočí	
Hours	Paper Title	Author
12:20-12:35	Experimental Determination of Biofilms Growth Rate on Selected Plasters	Klára Kobetičová, Šárka Hnyková, Jana Nábělková, <u>Václav Kočí</u>
12:35-12:50	A brief review of optimization approaches of operating conditions in hollow clay brick tunnel dryer	<u>Jan Kočí</u>
12:50-13:05	Modeling of Rotation of Stiff Ferromagnetic Fiber in non-Newtonian Fluid Initiated by Magnetic Field	<u>Kristýna Takáčová</u> , Karel Mikeš, Karel Kunzel

Session Name:	Measures and Models with Statistical and Computational Challenges	
Chair Name:	Teresa A. Oliveira	
Hours	Paper Title	Author
15.00 – 15.20	Goal Attainment Measures for Stroke Survivors Self-Management Support Interventions: A Systematic Review	Barbara Kimmel
15.20 – 15.40	Short-term forecast calibration of meteorological time series	Fernanda Pereira , Marco Costa, and A. Manuela Gonçalves
15.40 – 16.00	Copulas Regression and Dependence	Jorge Manuel Lopes Basilio Amílcar Manuel do Rosário Oliveira
16.00 – 16.20	SIGMA - Stochastic Individual Growth Models Applications	Nuno M. Brites
16.20 – 16.40	E-Learning classes monitoring with control charts: examples with real data based on online teaching system	Amílcar Oliveira and Teresa A. Oliveira
16.40 – 17.00	Features and emergent applications of Experimental Design with one factor	Teresa A. Oliveira



Room 1

Session Name:	Minisymposium n. 17	
Chair Name:	ELIDE NASTRI and ROSARIO MONTUORI	
Hours	Paper Title	Author
17:00-17:10	Overview of the use of the Seismic Shear Proportioning Factor on the design of Steel MRFs	<u>Paolo Todisco</u>
17:10-17:20	Simplified Methods for the Evaluation of seismic Performances of Steel Frames	<u>Paolo Todisco</u> , <u>Vincenzo Piluso</u>
17:20-17:30	Empirical Formulas to Predict the Ultimate Behaviour of I-shaped Aluminium Members	<u>Alessandro Pisapia</u>
17:30-17:40	Evaluation of Overstrength Factor of Short Links in the Eccentrically Braced Frames (EBFs)	<u>Alessandro Pisapia</u>
17:40-17:50	Finite Element Modelling of RC Beam-to-Column Joint	<u>Simona Streppone</u> , <u>Magdalini Titirla</u>
17:50-18:00	Influence of the Slab Floor on the Behaviour of Reinforced Concrete Beam-to-Column Joints: State of the Art	<u>Simona Streppone</u>
18:00-18:10	A review on the removable link in Eccentrically Braced Frames: benefits and performances	<u>Elide Nastri</u> , <u>Francesco Plaitano</u>
18:10-18:20	The Application of TMD to Existing Buildings: the Idea and Future Developments	<u>Pasquale Roberto Marrazzo</u> , <u>Rosario Montuori</u> , <u>Elide Nastri</u>
18:20-18:30	Advanced Seismic Design for Storage Pallet Rack Steel Frames	<u>Claudio Bernuzzi</u> , <u>Marco Simoncelli</u>
18:30-18:40	A Testing Equipment for Seismic Studies of Steel Rack Frames	<u>Nadia Baldassino</u> , <u>Martina Bernardi</u> , <u>Claudio Bernuzzi</u> , <u>Arturo di Gioia</u> , <u>Marco Simoncelli</u>
18:40-18:50	Seismic Behaviour of Residential Steel Buildings Made of Cold Formed Steel Members	<u>Nadia Baldassino</u> , <u>Riccardo Zandonini</u> , <u>Marco Zordan</u>
18:50-19:00	Experimental and Numerical Study of the Loading Rate Influence on T-stub Performance	<u>Nadia Baldassino</u> , <u>Martina Bernardi</u> , <u>Riccardo Zandonini</u>
19:00-19:10	Experimental Investigations of Lateral Behaviour of UHS steel bracing wall	<u>Alessia Campiche</u>
19:10-19:20	Experimental investigation of non-preloadable grade 8.8 bolts	<u>Roberto Tartaglia</u> , <u>Alessia Campiche</u>
19:20-19:30	Finite Element Reliability Analysis of Flexural Buckling of Cold-Formed Hollow Section Members	<u>Arash Poursadrollah</u>
19:30-19:40	Chevron concentric bracings: the secondary frame effect	<u>Silvia Costanzo</u> , <u>Arash Poursadrollah</u>



Session Name:	General Session	
Chair Name:	Anthony Gravouil	
20.00-20.20	Heterogeneous asynchronous time integrator for non-smooth dynamics	Anthony Gravouil

END OF DAY 2 – END OF PHYSICAL PRESENTATIONS