



INCAS - National Institute for Aerospace Research "Elie Carafoli"
(under the Aegis of the Romanian Academy)



ISMMA - Institute of Mathematical Statistics
and Applied Mathematics of the Romanian Academy
"Gheorghe Mihoc - Caius Iacob"



University of Bucharest



"Politehnica" University of Bucharest
UPB

The 39th "Caius Iacob" Conference on Fluid Mechanics and its Technical Applications

28 – 29 October 2021, Bucharest, Romania

Virtual Conference

Agenda

Day 1 Thursday, 28 October 2021			
Time (CET)		Plenary ROOM (Click to join the Virtual Meeting)	
9:40	10:00	Welcome and introduction by the Conference Chairman Dr. Eng. Catalin NAE , President & CEO, INCAS – National Institute for Aerospace Research "Elie Carafoli", Bucharest, Romania Dr. Math. Stelian ION , "Gheorghe Mihoc-Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics of Romanian Academy, Bucharest, Romania	
Plenary 10:00 – 10:40		Chair: Catalin NAE (INCAS)	
10:00	10:40	"Motion of social masses: Application of modelling with measures to pedestrian flows" Plenary Lecture speech by Prof. Dr. habil. Adrian MUNTEAN Department of Mathematics and Computer Science, Karlstad University, Sweden, Centre for Societal Risk Research (CSR), Karlstad University, Sweden	
10:40	11:00	Break	
ROOMs Session 11:00 – 12:40	ROOM 1 Click to join the Virtual Meeting ROOM 1	ROOM 2 Click to join the Virtual Meeting ROOM 2	ROOM 3 Click to join the Virtual Meeting ROOM 3
Session Title	Mathematical Modeling	Technical Applications	WORKSHOP ASRO/CT 72 Aeronautica si spatii
Session Chair(s)	Alexandru M. MOREGA (UPB)	Mihai-Victor PRICOP (INCAS)	Valentin BERCA (ASRO) Peter KALMUTCHI (ASRO)
11:00	11:20	11:00	INVITATIE AGENDA WORKSHOP ASRO/CT 72 LISTA INVITATI
11:20	11:40	11:20	
11:40	12:00	11:40	
12:00	12:20	12:00	
12:20	12:40	12:20	
12:40	13:20	Break	

ROOMs Session 13:20 – 14:40		ROOM 1 Click to join the Virtual Meeting ROOM 1	ROOM 2 Click to join the Virtual Meeting ROOM 2	ROOM 3 Click to join the Virtual Meeting ROOM 3
Session Title		Mathematical Modeling	Technical Applications	Basic Methods in Fluid Mechanics
Session Chair(s)		Stelian ION (<i>ISMMA</i>)	Mihai-Victor PRICOP (<i>INCAS</i>)	Valentin BUTOESCU (<i>INCAS</i>)
13:20	13:40	S4.6 Cooling the photovoltaic panels by natural and forced convection <i>Florin SĂFTOIU,</i> <i>Alexandru M. MOREGA</i>	S5.6 Performance analysis of electric aircraft configurations <i>Ionut BUNESCU,</i> <i>Mihai-Vladut HOTHAZIE</i>	S1.1 The truth on gravity and terrestrial global warming <i>Horia DUMITRESCU,</i> <i>Vladimir CARDOȘ,</i> <i>Radu BOGATEANU</i>
13:40	14:00	S4.7 Numerical analysis of the aging heat treatment of Aluminum alloy plates <i>Alexandru M. MOREGA,</i> <i>Marin PETRE,</i> <i>Alin A. DOBRE,</i> <i>Yelda VELI,</i> <i>Alexandra V. NECOLA</i>	S5.7 Low-speed airfoil shape optimization using high-fidelity CFD analysis <i>Mihai-Vladut HOTHAZIE,</i> <i>Ionut BUNESCU,</i> <i>Mihai-Victor PRICOP</i>	S1.2 Wing in Ground Effect: A new Method for Modelling a Wavy Surface <i>Valentin Adrian Jean BUTOESCU</i>
14:00	14:20	S4.8 Some practical remarks in solving partial differential equations using reduced order schemes obtained through the POD method <i>Alexandru SOLOMON,</i> <i>Valentin Claudiu OLTEI,</i> <i>Alina BOGOI</i>	S5.8 Fast inviscid transonic airfoil optimization using a nonlinear potential solver <i>Georgiana ICHIM,</i> <i>Sterian DANAILA,</i> <i>Mihai-Victor PRICOP</i>	S1.3 Low Speed Propeller Optimization <i>Alexandra STĂVĂRESCU,</i> <i>Mihai-Victor PRICOP,</i> <i>Georgiana ICHIM,</i> <i>Ion FUIOREA</i>
14:20	14:40	S4.9 Numerical Estimation of Pressure Loss in Labyrinth Seals <i>Ruxandra Maria Ileana MATEI,</i> <i>Sterian DĂNĂILĂ</i>	S5.9 Experimental investigations on rheological properties of biogreases <i>Alexandru Valentin RADULESCU,</i> <i>Irina RADULESCU</i>	S1.4 Comparison between Compressible and Incompressible Solvers in OpenFoam <i>Adrian CHELARU,</i> <i>Cristian Constantin ANDREI</i>
14:40	15:00	Break		
Time (CET)		Plenary ROOM (Click to join the Virtual Meeting)		
Plenary 15:00 – 16:20		Chair: Catalin NAE, President & CEO, INCAS		
15:00	15:40	“Dynamics of immiscible liquids in rotational motion” Plenary Lecture speech by Prof. Dr. Eng. Corneliu BALAN and Diana BROBOANA, Ana-Maria BRATU REOROM Laboratory, University POLITEHNICA Bucharest, Romania		
15:40	16:20	“Prediction of a Flight Dynamics Model for the Unmanned Aerial System UAS-S4 from Hydra Technology” Plenary Lecture speech by Prof. Dr. Eng. Ruxandra Mihaela BOTEZ École de Technologie Supérieure, Université du Québec, LARCASE, 1100 Notre Dame West, Montréal, Qué., Canada, H3C-1K3		
ROOMs Session 16:25 – 17:25		ROOM 1 Click to join the Virtual Meeting ROOM 1	ROOM 2 Click to join the Virtual Meeting ROOM 2	
Session Title		Equations of Mathematical Physics	Technical Applications	
Session Chair(s)		Sterian DANAILA (<i>UPB</i>) Stelian ION (<i>ISMMA</i>)	Mihai-Victor PRICOP (<i>INCAS</i>)	
16:25	16:45	S2.1 Smooth interface analysis in Kelvin-Helmholtz instability <i>Ilinca-Laura BURDULEA,</i> <i>Alina BOGOI</i>	S5.10 Aerodynamic assessment of a Vertical Take-Off and Landing rocket vehicle in hover and ground proximity <i>Dumitru PEPELEA,</i> <i>Alexandru-Julian ONEL,</i> <i>Alexandru-Gabriel PERȘINARU</i>	
16:45	17:05	S2.2 Acoustics pressure estimation due to thickness noise of a hovering helicopter <i>Cosmin MICH,</i> <i>Alina BOGOI</i>	S5.11 Free-free vibrations analysis of the aircraft IAR-99 HAWK based on a new and modern finite element model <i>Tudor VLADIMIRESCU,</i> <i>Ion FUIOREA,</i> <i>Tudor VLADIMIRESCU-jr</i>	
17:05	17:25		S5.12 Design and development of a set of reentry capsule wind tunnel models to achieve the aerodynamic characterization at all angles of attack <i>Mihăiță Gilbert STOICAN,</i> <i>Mihai Victor PRICOP</i>	
End of the 1st Day of the 39 th “Caius Iacob” Conference, Virtual Conference				



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The 39th "Caius Iacob" Conference on Fluid Mechanics and its Technical Applications

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Day 2 Friday, 29 October 2021		
Time (CET)	Plenary ROOM (Click to join the Virtual Meeting)	
9:30	09:45	Welcome and introduction by the Conference Chairman Dr. Eng. Catalin NAE , President & CEO, INCAS – National Institute for Aerospace Research "Elie Carafoli", Bucharest, Romania Dr. Math. Stelian ION , "Gheorghe Mihoc-Caius Iacob" Institute of Mathematical Statistics and Applied Mathematics of Romanian Academy, Bucharest Dr. Fiz. Adriana STEFAN , President of the Scientific Council of the INCAS – National Institute for Aerospace Research "Elie Carafoli", Romania
09:45	10:30	The "Caius IACOB" – Prize Award Ceremony The "Nicolae TIPEI" – Prize Award Ceremony The "Gheorghe VASILCA" – Prize Award Ceremony
		- Tribute presentation of awards by Dr. Eng. Victor MANOLIU (INCAS) - The winners' speech
		- Presentation of the awarded works
10:30	11:00	- Presentation of the awarded works
11:00	11:20	Break
ROOMS Session 11:20 – 13:50	ROOM 1 Click to join the Virtual Meeting ROOM 1	ROOM ROOM 2 Click to join the Virtual Meeting ROOM 2
Session Title	Dynamical Systems	Technical Applications
Session Chair(s)	Laurentiu MORARU (UPB)	Marius Alexandru PANAIT (INCAS) Mihai-Victor PRICOP (INCAS)
11:20	11:40	11:40
11:40	12:00	12:00
12:00	12:20	12:20
12:20	12:40	12:40
12:40	13:00	13:00
13:00	13:20	13:20
13:20	13:50	13:50
End of the 2rd Day of the 39th "Caius Iacob" Conference, Virtual Conference		

CONFERENCE TOPICS

- S1. Basic Methods in Fluid Mechanics
- S2. Equations of Mathematical Physics
- S3. Dynamical Systems
- S4. Mathematical Modeling
- S5. Technical Applications

Events associated with of the conference:

- WORKSHOP ASRO/CT 72 Aeronautica si spatiu – 28 October 2021
- The "Caius IACOB" Prize Award Ceremony – 29 October 2021
- The "Nicolae TIPEI" Prize Award Ceremony – 29 October 2021
- The "Gheorghe VASILCA" Prize Award Ceremony – 29 October 2021