11th International Conference "Inverse Problems: Modeling and Simulation"
Paradise Bay Resort Hotel, Malta, 26 May – 1 June 2024

CONFERENCE PROGRAMME OUTLINE

REGISTRATION: Paradise Bay Resort Hotel Reception Hall
SUNDAY, 26 May 2024, 14:00-18:00
MONDAY, 27 May 2024, 08:30-10:00

MONDAY, 27 May 2024

Time				
10:00-10:35	**Opening Ceremony & Award Presentation** (Amphitheatre)			
10:40-11:20	**PLENARY SESSION (Salon A)** — **Chrysoula Tsogka**, University of California, Merced, USA — *Correlation-informed ordered dictionary learning for imaging in complex media*			
11:20-11:40	**Coffee Break**			

MINISYMPOSIUMS
(Sessions consist of four 25-minute presentations.)

Time	Salon B	Salon B	Salon C	Salon D
11:40-13:20	**M1: The Radon Transform: Progress and Challenges** *Minisymposium dedicated to Professor Jan Boman* Organizers: R. Novikov, T. Quinto **Session 1**	**M10: Inverse and Control Problems for Evolution Equations and Variational Inequalities** Organizer: M. Slodička **Session 1**	**M4: New Trends in Regularization Theory** Organizers: S. Kindermann, R. Plato, B. Hofmann **Session 1**	**M12: Applied Inverse Problems and Partial Differential Equations** Organizers: K. Van Bockstal, M. Ruzhansky, B. Torebek **Session 1**
13:20-14:30	**Lunch**			
14:30-16:10	**M1** (Continued) **Session 2**	**M10** (Continued) **Session 2**	**M4** (Continued) **Session 2**	**M12** (Continued) **Session 2**
16:10-16:30	**Coffee Break**			
16:30-18:35	**M2: Microlocal Analysis and Waves: Progress and Challenges** Organizers: R. Ramlau, T. Quinto, K. Sadiq, O. Scherzer **Session 1**	**M17: In Memoriam: Professor Pierre Célestin Sabatier (1935-2023)** Organizer: C. Sebu **Session 1**	**M16: Inverse Problem Theory for Innovation of Detection Methods** Organizers: H. Itou, V. Kovtunenko, Y. Kian **Session 1**	**M12** (Continued) **Session 3**
19:30-20:30	**Welcome Party**			

	TUESDAY, 28 May 2024			
	PLENARY SESSION (Salon A)			
09:00-09:40	**Florian Faucher,** INRIA Bordeaux, University of Pau and Pays de l'Adour, France *Numerical inverse wave problems for quantitative visco-elastic reconstructions*			
	MINISYMPOSIUMS			
	Salon A	Salon B	Salon C	Salon D
09:50-11:30	**M2: Microlocal Analysis and Waves: Progress and Challenges** (Continued) Organizers: R. Ramlau, T. Quinto, K. Sadiq, O. Scherzer **Session 2**	**M17: In Memoriam: Professor Pierre Célestin Sabatier (1935-2023)** Organizer: C. Sebu (Continued) **Session 2**	**M4: New Trends in Regularization Theory** (Continued) Organizers: S. Kindermann, R. Plato, B. Hofmann **Session 3**	**M12: Applied Inverse Problems and Partial Differential Equations** (Continued) Organizers: K. Van Bockstal, M. Ruzhansky, B. Torebek **Session 4**
11:30-11:50	Coffee Break			
11:50-13:30	**M2** (Continued) **Session 3**	**M17** (Continued) **Session 3**	**M5: Inverse Problems in Hybrid Imaging Modalities** Organizers: S. Arridge, L. Kunyansky **Session 1**	**M12** (Continued) **Session 5**
13:30-15:00	Lunch			
15:00-16:40	**M2** (Continued) **Session 4**	**M11: Image Restoration Under Poisson Noise** Organizers: F. Benvenuto, Y. Lou, F. Werner **Session 1**	**M14: Recent Advances in Inverse Scattering Theory and Applications** Organizers: T. Hohage, S. Meng, R. Novikov **Session 1**	**M15: Imaging with Waves in Complex Media** Organizers: A. Kim, C. Tsogka **Session 1**
16:40-17:00	Coffee Break			
17:00-18:40	**M16: Inverse Problem Theory for Innovation of Detection Methods** (Continued) Organizers: H. Itou, V. Kovtunenko, Y. Kian **Session 2**	**M11** (Continued) **Session 2**		**M15** (Continued) **Session 2**
19:00-19:30	**Biennial Assembly of the Eurasian Association on Inverse Problems (Salon A)**			

	WEDNESDAY, 29 May 2024
	Excursions
10:00-17:00	**Round Malta Boat Tour** This tour includes open bar all day for water, soft drinks and juice, morning snack, cold buffet lunch including beer and wine, fresh fruits, English commentary and a stop for swimming (departure from the hotel at 9:30).
09:30-17:30	**Malta City Sightseeing Tour** This tour includes visits of Valletta, St. John's Co-Cathedral, Mdina and time-permitting a small stop for swimming or a short boat tour at the Blue Grotto.
	Each of these excursions costs 55 euros per person. This fee must be paid to the conference assistant at the registration desk a few days before the tours begin.

THURSDAY, 30 May 2024			

THURSDAY, 30 May 2024

PLENARY SESSION (Salon A)

09:00-09:40 — **Vladislav V. Kravchenko,** Center for Research and Advanced Studies of the National Polytechnic Institute, Queretaro, Mexico
New series representations and reconstruction techniques in inverse coefficient problems

MINISYMPOSIUMS

	Salon A	Salon B	Salon C	Salon D
09:50-11:30	**M9: Inverse Problems for Fractional Equations** Organizers: G. Covi, B. Kaltenbacher, M. Salo **Session 1**	**M8: Inverse Problems with Data-Driven Methods and Deep Learning** Organizers: T. Bubba, A. Hauptmann, L. Ratti **Session 1**	**M14: Recent Advances in Inverse Scattering Theory and Applications** (Continued) Organizers: T. Hohage, S. Meng, R. Novikov **Session 2**	**M7: Bayesian, Variational, and Optimization Techniques for Inverse Problems in Stochastic PDEs** Organizers: B. Kaltenbacher, A. Khan, H.J. Starkloff, C. Tammer **Session 1**
11:30-11:50	Coffee Break			
11:50-13:30	**M9** (Continued) **Session 2**	**M8** (Continued)**: Session 2**	**M14** (Continued) **Session 3**	**M7** (Continued) **Session 2**
13:30-15:00	Lunch			
15:00-16:40	**M3: Inverse and Control Problems in Vibrating Structures: Theory, Applications and Computational Aspects** Organizers: O. Baysal, A. Kawano, A. Morassi **Session 1**	**M6: Topological Derivatives in Inverse Problems and Shape Optimization** Organizers: P. Gangl, M.-L. Rapún **Session 1**	**M5: Inverse Problems in Hybrid Imaging Modalities** (Continued) Organizers: S. Arridge, L. Kunyansky **Session 2**	**M7** (Continued) **Session 3**
16:40-17:00	Coffee Break			
17:00-18:40	**M3** (Continued) **Session 2**	**M6** (Continued) **Session 2**		
20:00-24:00	Banquet			

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FRIDAY, 31 May 2024

PLENARY SESSION (Salon A)

09:00-09:40 **Pierre Weiss,** Toulouse Mathematics Institute, University of Toulouse, France
How artificial intelligence is changing Bayesian inversion?

MINISYMPOSIUMS

	Salon A	Salon B	Salon C	Salon D
09:50-11:30	**M9: Inverse Problems for Fractional Equations** (Continued) Organizers: G. Covi, B. Kaltenbacher, M. Salo **Session 3**	**M13: Applications of Rich Tomography** Organizers: S. Holman, W.R.B. Lionheart **Session 1**	**M10: Inverse and Control Problems for Evolution Equations and Variational Inequalities** (Continued) Organizer: M. Slodička **Session 3**	**M7: Bayesian, Variational, and Optimization Techniques for Inverse Problems in Stochastic PDEs** (Continued) Organizers: B. Kaltenbacher, A. Khan, H.J. Starkloff, C. Tammer **Session 4**
11:30-11:50	Coffee Break			
11:50-13:30	**M8: Inverse Problems with Data-Driven Methods and Deep Learning** (Continued) Organizers: T. Bubba, A. Hauptmann, L. Ratti **Session 3**	**M13** (Continued) **Session 2**	**M10** (Continued) **Session 4**	**M7** (Continued) **Session 5**
13:30-15:00	Lunch			
15:00-16:40	**M8** (Continued) **Session 4**	**M3: Inverse and Control Problems in Vibrating Structures: Theory, Applications and Computational Aspects** (Continued) Organizers: O. Baysal, A. Kawano, A. Morassi **Session 3**		
16:40-17:00	Coffee Break			
18:50-19:20	Closing Ceremony. Election of Committee Members for IPMS 2026 (Salon A)			