

Under the Auspices of  
H.E. the President of the Hellenic Republic  
Mr. Prokopios Pavlopoulos

First Congress of Greek Mathematicians  
FCGM–2018



June 25 – 30, 2018  
Athens, Greece  
Hellenic Mathematical Society (HMS)



# First Congress of Greek Mathematicians Program

## Plenary Talks

### Monday, June 25, 2018

- 09:00 – 11:00 *Reception and Opening Ceremony*  
 11:00 – 11:30 *Coffee Break*  
 11:30 – 12:20 **Athanasios Fokas**  
*From the Wiener-Hopf technique to the Lindelöf Hypothesis*  
 12:30 – 13:20 **Demetrios Christodoulou**  
*Geometric Analysis in the Development of Shocks  
 in Compressible Fluids*  
 14:30 – 16:00 *Break*  
 16:00 – 18:30 **Parallel Sessions**  
 ANAL, DIFFEQ, H&PH, NT, TOP  
 19:00 – 19:50 **Thaleia Zariphopoulou**  
*Stochastic partial differential equations and risk management*  
 20:00 – 20:50 **Mihalis Dafermos**  
*The mathematics of black holes*

### Tuesday, June 26, 2018

- 09:00 – 11:00 **Parallel Sessions**  
 AN, DIFFEQ, GEOM, PROB-STAT, TOP  
 11:00 – 11:30 *Coffee Break*  
 11:30 – 12:20 **George Papanicolaou**  
*Imaging with correlations*  
 12:30 – 13:20 **Constantinos Daskalakis**  
*From von Neumann's Minimax Theorem to Generating Beautiful Images*  
 13:30 – 14:20 **Loukas Grafakos**  
*A short glimpse of the giant footprint of Fourier Analysis  
 and recent multilinear advances*  
 14:30 – 16:00 *Break*  
 16:00 – 18:30 **Parallel Sessions**  
 ANAL, DIFFEQ, GEOM, M-FIN  
 18:30 – 19:00 *Coffee Break*  
 19:00 – 20:50 **Round Table**  
*The leakage of Greek scientific potential in the years of the crisis.  
 Which factors could help to its containment?*  
 V. Dougalis (NKUA, Coordinator), C. Daskalakis (MIT)  
 G. Papanicolaou (Stanford), I. Sakellaridis (Rutgers)  
 Representatives of the Greek Ministry of Education,  
 the Bank of Greece and the National Bank of Greece

### Wednesday, June 27, 2018

- 09:00 – 11:00 **Parallel Sessions**  
 ALG-COMB, ANAL, DIFFEQ, LFM, M-EDU, NA&SC
- 11:00 – 11:30 *Coffee Break*
- 11:30 – 12:20 **Alexander Kechris**  
*Dynamics of non-archimedean groups, logic and Ramsey theory*
- 12:30 – 13:20 **Stavros Garoufalidis**  
*Classical and quantum topology*
- 13:30 – 14:20 **Maryanthe Malliaris**  
*Model theory and ultraproducts*
- 14:30 – 16:00 *Break*
- 16:00 – 18:30 **Parallel Sessions**  
 ALG-COMB, ANAL, DIFFEQ, GEOM, LFM, M-EDU, NA&SC
- 18:30 – 19:00 *Coffee Break*
- 19:00 – 19:50 **Spyridon Argyros**  
*The space  $\mathcal{L}(\mathfrak{X})$  for certain Banach spaces*
- 20:00 – 20:50 **Phokion Kolaitis**  
*Logic, Constraint Satisfaction, and Quantum Information*

### Thursday, June 27, 2018

- 09:00 – 11:00 **Parallel Sessions**  
 ALG-COMB, ANAL, DIFFEQ, LFM, M-EDU, NA&SC
- 11:00 – 11:30 *Coffee Break*
- 11:30 – 12:20 **Charalambos Makridakis**  
*Mathematics of Computational Modelling: the challenge of computing nonlinear phenomena*
- 12:30 – 13:20 **Panagiota Daskalopoulou**  
*Ancient solutions to Geometric Flows*
- 13:30 – 14:20 **Nicos Kapouleas**  
*Recent gluing constructions in Geometry and the gluing methodology*
- 14:30 – 16:00 *Break*
- 16:00 – 18:30 **Parallel Sessions**  
 ALG-COMB, ANAL, DIFFEQ, NA&SC, PROB-STAT
- 18:30 – 19:00 *Coffee Break*
- 19:00 – 19:50 **Georges Skandalis**  
*Lie groupoids and index theory*
- 20:00 – 20:50 **George Pappas**  
*Shimura varieties over the integers*

### Friday, June 29, 2018

- 09:00 – 11:00 **Parallel Sessions**  
 ALG-COMB, ANAL, M-PHYS, PROB-STAT
- 11:00 – 11:30 *Coffee Break*
- 11:30 – 12:20 **Harry Tamvakis**  
*Theta polynomials in geometry, Lie theory, and combinatorics*
- 12:30 – 13:20 **Antonis Melas**  
*Sharp estimates for dyadic type maximal operators and stability*
- 13:30 – 16:00 *Break*
- 16:00 – 18:30 **Parallel Sessions**  
 ALG-COMB, ANAL, CT&OR, M-PHYS
- 18:30 – 19:00 *Coffee Break*
- 19:00 – 19:50 **George Karniadakis**  
*Fractional Partial Differential Equations:  
 Theory, Algorithms and Applications*
- 20:00 – 20:50 **Michael Katehakis**  
*Reinforcement Learning: Connections between  
 MDPs and MAB Problems*
- 21:00 – **Dinner of the Congress**  
 The farewell dinner will take place in RYTHMOS, Zografou  
 at the park Goudi

### Saturday, June 30, 2018

Excursion: One Day Cruise to Hydra – Poros – Aegina.



## Parallel Sessions

	Room	25B	26A	26B	27A	27B	28A	28B	29A	29B
ALG-COMB	AMΦ.22				*	*	*	*	*	*
ANAL	AMΦ.24	*	*	*	*	*	*	*	*	*
CT	Γ.21									*
DIFFEQ	AMΦ.23	*	*	*	*	*	*	*		
GEOM	Γ.32		*	*		*				
H&PH	Γ.31	*								
LFM	Γ.22				*	*	*			
M-FIN	Γ.21			*						
M-PHYS	Γ.22								*	*
M-ED	Γ.31				*	*	*			
NT	Γ.21	*								
NA&SC	AMΦ.21				*	*	*	*		
PROB-STAT	Γ.31 – 32		*					*	*	
TOP	Γ.22	*	*							

ALG-COMB – Algebra and Combinatorics

ANAL – Analysis

CT – Control Theory, Operations Research and Optimization

DIFFEQ – Differential Equations and Dynamical Systems

GEOM – Geometry

H&PH – History and Philosophy of Mathematics

LFM – Logic and Foundations of Mathematics

M-FIN – Mathematical Finance

M-PHYS – Mathematical Physics

M-ED – Mathematics Education

NT – Number Theory, Arithmetic Geometry, Cryptography

NA&SC – Numerical Analysis and Scientific Computing

PROB-STAT – Probability and Statistics

TOP – Topology and Applications

