

**Under the Auspices of His Excellency the President of the Hellenic Republic,
Mr. Prokopios Pavlopoulos**

Technical Program - October 15-16, 2019
FORTH/ICE-HT Conference Center
Stadiou Str., Platani, Patras

Tuesday, October 15, 2019 (FORTH/ICE-HT Conference Center)

8:45 Bus arrival at FORTH/ICE-HT

9:00 - 10:50	PRESENTATIONS OF FORTH INSTITUTES AND UNITS (1) <i>Chair: Dr. Maria Klapa (ICE-HT)</i>
9:00 - 9:20	Presentation of FORTH Prof. Nektarios Tavernarakis, Chairman of Board of Directors
9:20 - 9:35	Institute of Chemical Engineering Sciences (ICE-HT) Dr. Vassilios Burganos, Director
9:35 - 9:50	Institute of Molecular Biology and Biotechnology (IMBB) Dr. Iannis Talianides, Director
9:50 - 10:05	Institute of Petroleum Research (IPR) Prof. Nikolaos Pasadakis, Director
10:05 - 10:20	Institute of Astrophysics (IA) Prof. Vassilios Charmandaris, Director
10:20 - 10:30	PRAXI - Help Forward Network Mr. Panagiotis Karniouras, Director
10:30 - 10:40	The Science and Technology Park of Crete (STEP-C) Mr. Artemis Saitakis, Director
10:40 - 10:50	Crete University Press (CUP) Ms. Dionysia Daskalou, Director
10:50 - 11.40	Coffee Break - Poster Viewing

Plenary Lecture I – Precision Medicine

11:40 - 12:25	<i>Chair: Dr. Iannis Talianides (IMBB)</i> <i>The Human Cell Atlas impact on life science and healthcare</i> Prof. Henk Stunnenberg Senior Scientist at Princess Maxima Centre for Pediatric Oncology, Utrecht Professor of Molecular Biology, Radboud University, Nijmegen, The Netherlands
12:25 - 13:25	FORTH RESEARCHERS' PRESENTATIONS: SESSION 1 <i>Chair: Dr. Maria Monastirioti (IMBB)</i>
12:25 - 12:45	<i>Unraveling the mechanisms regulating innate immune responses to identify functional biomarkers for inflammatory diseases</i> Prof. Christos Tsatsanis IMBB Collaborating Faculty Member & Medical School-University of Crete
12:45 - 13:05	<i>Organoid based tissue manufacturing: designing high-precision functional living implants</i> Dr. Ioannis Papantoniou Assistant Researcher, ICE-HT
13:05 - 13:25	<i>Greek National Networks of Personalized Medicine for Cancer Prevention and Cardiovascular diseases: technical perspectives</i> Dr. Irimi Fundulaki Associate Researcher, ICS
13:30 – 14:00	FORTH/ICE-HT Lab Tour
14:00 - 15:00	Lunch

Plenary Lecture II – Petroleum Research

15:00 - 15:45	<p><i>Chairs: Dr. Vassilios Burganos (ICE-HT) & Prof. Nikolaos Pasadakis (IPR)</i></p> <p><i>Multiphase flow in geological porous media: new insights and application perspectives</i></p> <p>Dr. Olga Vizika Director of Geosciences, IFP Energies Nouvelles, France</p>
15:50 - 17:30	<p>FORTH RESEARCHERS' PRESENTATIONS: SESSION 2</p> <p><i>Chair: Dr. Konstantina Georgiadi (IMS)</i></p>
15:50-16:10	<p><i>Archaeological investigation of the Institute for Mediterranean Studies in Eastern Crete</i></p> <p>Dr. Konstantinos Roussos Postdoctoral Research Fellow, IMS</p>
16:10-16:30	<p><i>Multi-Level Studies of Developmental Morphogenesis: from Biophysics to EvoDevo</i></p> <p>Dr. Anastasios Pavlopoulos Assistant Researcher, IMBB</p>
16:30-16:50	<p><i>Lasers: From strong-laser-field physics to attosecond science and quantum optics</i></p> <p>Dr. Paraskevas Tzallas Research Director, IESL</p>
16:50-17:10	<p><i>Uncovering Conspiracy Theories: How to Discover and Infer Latent Confounders in Sparse Dynamical Systems</i></p> <p>Dr. Yannis Pantazis Assistant Researcher, IACM</p>
17:10-17:30	<p><i>Reasoning Technologies for Theoretical and Applied AI</i></p> <p>Dr. Giorgos Flouris Associate Researcher, ICS</p>
17:30 - 18:20	<p>SHORT PRESENTATIONS OF 2019 FORTH SYNERGY GRANTS</p> <ul style="list-style-type: none"> • <i>“OMEGA”: Optical memristors, based on photo-fluidity, chalcogenide whispering gallery mode cavities</i> Dr. Stavros Pissadakis Research Director, IESL • <i>“RINGS”: Shear and extensional rheology of entangled ring polymer melts</i> Dr. Dimitris Tsalikis Postdoctoral Research Fellow, ICE-HT • <i>“NEUROGRAMS”: Neural networks in Alzheimer’s disease</i> Prof. Maria Papadopouli, Dept. of Computer Science, University of Crete ICS Collaborating Faculty Member • <i>“SPIVAST”: Spin-valley polarization studies in monolayer transition metal dichalcogenides under mechanical deformation</i> Prof. George Kioseoglou, Dept. of Materials Science & Technology, Univ. of Crete IESL Collaborating Faculty Member • <i>“EVO-NMDA”: Evolution of the NMDA receptor and its role in cognitive functions</i> Dr. Pavlos Pavlidis Assistant Researcher, ICS
18:20 - 19:40	Main Poster Presentation Session
19:45	Transport to hotels
21:00	GALA DINNER (IFIGENEIA Restaurant, Rio http://www.ifigeneiarestaurant.gr/)

Wednesday, October 16, 2019 (FORTH/ICE-HT Conference Center)

8:45 Bus arrival at FORTH/ICE-HT

9:00 - 10:00	PRESENTATIONS OF FORTH INSTITUTES AND UNITS (2) <i>Chair: Dr. Wolf von Klitzing (IESL)</i>
9:00 - 9:15	Institute of Mediterranean Studies (IMS) Prof. Gelina Harlaftis, Director
9:15 - 9:30	Institute of Electronic Structure and Laser (IESL) Prof. Spiros Anastasiadis, Director
9:30 - 9:45	Institute of Computer Science (ICS) Prof. Dimitris Plexousakis, Director
9:45 - 10:00	Institute of Applied and Computational Mathematics (IACM) Prof. Charalambos Makridakis, Director

Plenary Lecture III – Space Research

10:00 - 10:45	<i>Chair: Dr. Wolf von Klitzing (IESL)</i> Presenting the ESA General Support Technology Programme (GSTP) Mr. Udo Becker Head of Technology Programmes Office European Space Agency (ESA)
10:45 - 11:20	Coffee Break

11:20 - 13:00	FORTH RESEARCHERS' PRESENTATIONS: SESSION 3 <i>Chair: Dr. Maria Klapa (ICE-HT) & Dr. Konstantina Georgiadi (IMS)</i>
11:20 - 11:40	Quantum Waves at IESL: From the Fundamental to the Practical Dr. Wolf von Klitzing Research Director, IESL
11:40 - 12:00	Estimation of Soil Erosion rates in different spatial and time scales. A Geoinformatics approach Dr. Dimitrios Alexakis Assistant Researcher, IMS
12:00 - 12:20	Signalling and Endocytic trafficking in endothelial cells: Basic Mechanisms and Perspectives in stem cell biology and differentiation Dr. Carol Murphy Associate Researcher, IMBB-BR
12:20 - 12:40	The Center of Studies on Air Quality and Climate Change (C-STACC) in ICE-HT Prof. Athanasios Nenes ICE-HT Affiliated Scientist & School of Architecture, Civil & Environmental Engineering, EPFL
12:40 - 13:00	3D Computer Vision for Faces and Other Deformable Objects Dr. Anastasios Roussos Associate Researcher, ICS
13:00 - 14:00	Lunch

14:00 - 14:40	FORTH RESEARCHERS' PRESENTATIONS: SESSION 4 <i>Chair: Dr. Ioannis Kamarianakis (IACM) & Dr. Maria Monastiriotti (IMBB)</i>
14:00 - 14:20	Cryptography: An interdisciplinary research field Dr. Georgios Nikolopoulos Associate Researcher, IESL
14:20 - 14:40	In Gods we trust, all others must bring data: IACM's new Statistical Learning Lab Dr. Ioannis Kamarianakis Associate Researcher, IACM

Plenary Lecture IV - Big Data Analysis

14:40 - 15:25	<i>Chair: Ioannis Kamarianakis (IACM)</i> <i>Bayesian computation: a personal perspective</i> Prof. Petros Dellaportas Professor of Statistical Science, UCL, UK, Professor of Statistics at the Athens University of Economics and Business & Turing Fellow, Alan Turing Institute, UK
15:25 - 16:20	<i>FORTH General Assembly Discussion</i> Chair: Prof. Nektarios Tavernarakis
16:20 - 17:00	<i>Poster Honors - Conclusions - Closing Remarks</i> Dr. Maria Klapa (on behalf of the Organizing Committee)
17:15	Departure to the Athens Airport or Piraeus Port