

DII - DIPARTIMENTO DI  
INGEGNERIA DELL'IMPRESA  
"MARIO LUCERTINI"

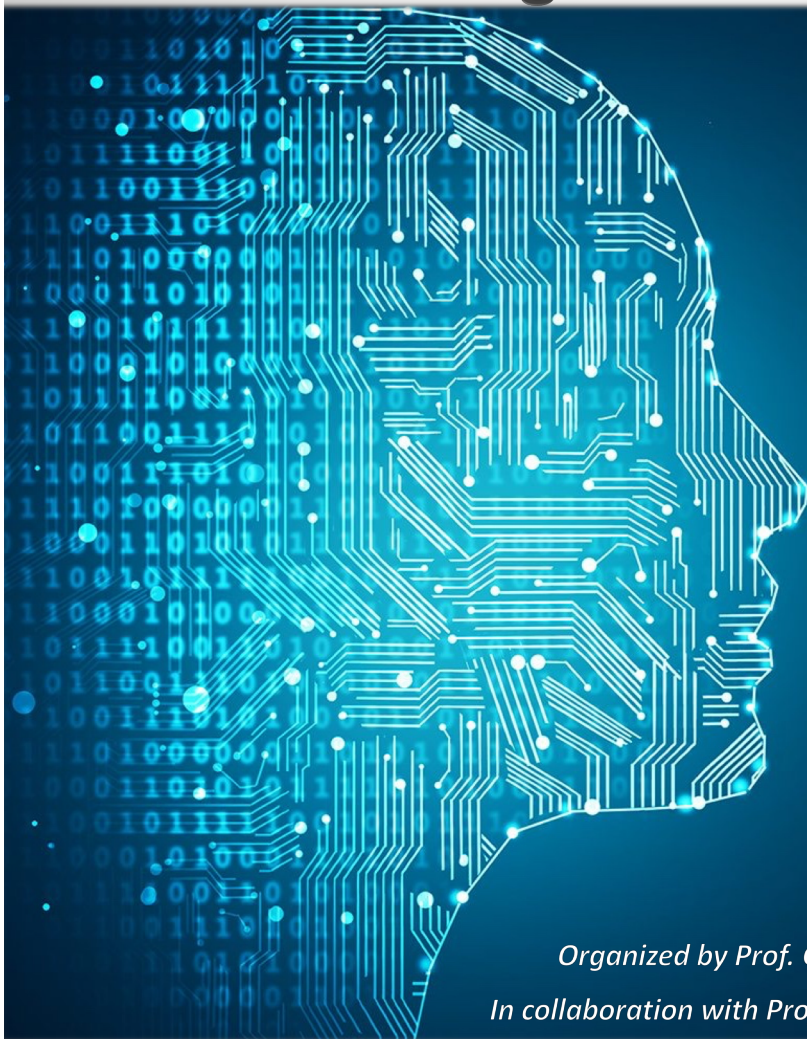
JOHN A. PAULSON  
SCHOOL OF ENGINEERING  
AND APPLIED SCIENCES

20th March 2019 Aula Convegni

Ore 11.00 – 16.30

## 1<sup>st</sup> International Workshop

# Artificial Intelligence for Complex Systems



11:30 – Welcome, Prof. Giacomo Falcucci

11:40 – Introduction, Prof. Roberto Basili

11:55 – Ethics and AI, Prof. Fabio Massimo Zanzotto

12:20 – Deep Neural Networks for Stellar Evolution, Prof. Pavlos Protopapas – Harvard University

Lunch Break

14:15 – Machine Learning for Fluid Mechanics and Turbulence Modeling, Prof. David Sondak – Harvard University

15:15 – Energy System Performance Optimization, Prof. Andrea L. Facci – Tuscia University

16:00 – Discussion: Learning from Physical Data: computation at the crossroad of modeling and inference

Organized by Prof. Giacomo Falcucci, Dr. V. K. Krastev and Dr. G. Di Ilio  
In collaboration with Prof. Roberto Basili and Prof. Fabio Massimo Zanzotto

**Pavlos Protopapas** is the Scientific Program Director and Lecturer at the Institute for Applied Computational Science at the Harvard John A. Paulson School of Engineering and Applied Sciences. Prof. Protopapas has a Ph.D. in theoretical physics from the University of Pennsylvania, and a BS in Physics from Imperial College, London. From 2005 to 2013, he was at the Harvard-Smithsonian Center for Astrophysics. Previously, he was the associate director of the National Scalable Cluster Project, initiating one of the first ever attempts of using large-scale distributed computing on a grid-like model.



**David Sondak** is a lecturer at the Institute for Applied Computational Science where he teaches courses on computational science and data science. David received his PhD in Aeronautical Engineering in 2013 from Rensselaer Polytechnic Institute during which time he was funded through the Department of Energy Office of Science Graduate Fellowship program. He received a Master's degree in Applied Mathematics, also from RPI, in 2011 and a Bachelor's degree in Mechanical Engineering from Lehigh University in 2008.

**Andrea Facci** got his Master Degree in Energy Engineering and his PhD in Mechanical Engineering at the University of Rome Tor Vergata. He has spent his Post-Doc fellowship at the University of Naples «Parthenope» and he is now Tenured Assistant Professor at Tuscia University. He is author of more than 40 scientific papers on Energy Systems.

