DATAscience DAY

18 September 2019
9.00 am - 18.00 pm

MINES ParisTech
60 bd Saint-Michel

Organized by the Department Mechanical and Materials Engineering of MINES ParisTech
Information MINES ParisTech Sophia Antipolis : Elie HACHEM (CEMEF)
9.00-9.30  Direction MINES ParisTech - Accueil et introduction

9.30-10.15  Prof. Charbel Farhat  Stanford University
A Physics-Based Alternative Approach to Digital Twins

10.15-10.30  Etienne Decencière  Centre for Mathematical Morphology (CMM)
Department of Mathematics and systems
Convolutional neural networks and mathematical morphology
for biomedical image analysis

10.30-10.45  Hervé Chauris  Centre of Geosciences
Department Earth sciences and environment
Imaging with large seismic data sets

10.45-11.00  Philippe Blanc  Centre Observation, Impacts, Energy (O.I.E.)
Department Energy and processes
Signal and Image processing of Earth observation for solar short term forecasting

11.00-11.15  Pascal Le Masson  Centre for Management Science (CGS)
Department of Economics, Management, Society
Data science and design theory: beyond modelling & optimizing,
the generativity logic in stats & AI

11.15-11.30  Chloé-Agathe Azencott  Centre for Computational Biology (CBIO)
Department of Mathematics and Systems
Biomarker discovery for precision medicine

11.30-11.45  Fabien Moutarde  Robotics Center (CAOR)
Department of Mathematics and Systems
Deep Reinforcement Learning for Autonomous Vehicles & Robotics

11.45-12.30  Dir. Rech. Marc Schoenauer  INRIA Saclay
Sciences des données: validation, certification, transparence,
et impacts sur la société

12.30-13.30  LUNCH BREAK
13.30-14.15  Prof. Francisco Chinesta  ENSAM ParisTech  
**Data-Driven Empowered Physics-Based Models**

14.15-14.30  Jonathan Viquerat, Elie Hachem  Centre for material forming (CEMEF)  
Department of Mechanical and Materials engineering  
*Deep Reinforcement Learning for fluid mechanics problems*

14.30-14.45  Thomas Walter  Centre for Computational Biology (CBIO)  
Department of Mathematics and systems  
*Computer Vision for Bioimage Analysis*

14.45-15.00  David Ryckelynck  Centre of materials (CDM)  
Department of Mechanical and Materials engineering  
*Transfer learning for hybrid modeling in mechanics of materials and structure*

15.00-15.15  Bruno Figliuzzi  Centre for Mathematical Morphology (CMM)  
Department of Mathematics and systems  
*Fast marching based approach to image segmentation*

15.15-15.30  Florent Di Meglio, Nicolas Petit  Automatic control and systems Centre (CAS)  
Department of Mathematics and systems  
*Assimilation of Experimental Data for Nonlinear Reduced Order Models*

15.30-15.45  **COFFEE BREAK**

15.45-16.00  Véronique Stoven  Centre for Computational Biology (CBIO)  
Department of Mathematics and systems  
*Machine-learning chemogenomics for identification of drugs mechanism of action*

16.00-16.15  Xavier Freulon  Centre of Geosciences  
Department Earth sciences and environment  
*Random fields on Riemann Manifolds using Stochastic Partial Differential Equation (SPDE)*

16.15-16.30  Céline Houriez  Centre Thermodynamic of Processes  
Department Energy and processes  
*Data Science for Molecular Simulation: some perspectives*

16.30-16.45  Thomas Romary  Centre of Geosciences  
Department Earth sciences and environment  
*Sequential data assimilation: application to the hydro-biogeochemical model Prose*

16.45-17.15  Prof. Jean-Philippe Vert  Google AI  
*Learning from ranks and learning to rank*
Invited Speakers
(in order of appearance)

9.30-10.15
Pr. Charbel FARHAT
Stanford University

11.45-12.30
Dir. de Rech.
Marc SCHÖNAUER
INRIA Saclay

13.30-14.15
Pr. Francisco CHINESTA
ENSAM ParisTech

16.45-17.15
Pr. Jean-Philippe VERT
Google AI