2019 INTERNATIONAL SYMPOSIUM ON DEEP LEARNING AND DATA MINING IN BIOLOGY AND MEDICINE

6-7 February 2019, ENS Lyon, France
Site Descartes – Building Buisson – Room D8-001
INVITED SPEAKERS

Leonardo Franco, PhD, Malaga University, Spain
Eric Guichard, PhD, Superior National School of Information Sciences and Libraries, Lyon, France
Simeone Marino, PhD, Michigan University, USA
Samy Melaine, DataGenius, Lyon, France
David Menéndez Hurtado, Stockholm University, Sweden
Martin Prodel, PhD, HEVA, Lyon, France
William Ritchie, PhD, Institute of Human Genetics, Montpellier, France
Luc Thomas, MD, PhD, Cancer Research Center of Lyon, France
Alexei Tsygvintsev, PhD, Unit of Pure and Applied Mathematics, ENS, Lyon, France

ORGANIZING COMMITTEE

Christophe Combet, PhD, Cancer Research Center of Lyon, France
Irène Gannaz, PhD, Camille Jordan Institute, INSA, Lyon, France
Samy Melaine, DataGenius, Lyon, France
Alexei Tsygvintsev, PhD, Unit of Pure and Applied Mathematics, ENS, Lyon, France
PRACTICAL INFORMATION

The symposium will take place at **ENS Lyon**, at **Descartes site**, Building Buisson, Room D8-001.

**Address:** 15 parvis René Descartes, 69007, Lyon, France (corner of avenue Jean Jaures and avenue Debourg)
How to come:

Public transport:
- Metro line B, stop "Debourg"
- Tramway T1 or bus C22, stop "Debourg"
- You can visit the web site http://tcl.fr.

Bicycle: Velov stations at Descartes place (see map above).

By train or plane:
- From Part-Dieu station, Metro line B direction Oullins
- From Perrache station, Tramway T1 direction Debourg
- From Saint-Exupéry International Airport, Rhône Express shuttle to join Part-Dieu station

By car:
- From east: Laurent Bonnevay South Boulevard, exit at Gerland
- From A6: exit at Pont Pasteur

The official language of the symposium is **English.**
Wednesday, February 6, 2019

09:15 - 09:45  Participants reception.

09:45 - 10:00  Véronique Maume-Deschamps (AMIES, Lyon, France) - Welcome words.

10:00 - 11:00  Samy Melaine (DataGenius, Lyon, France) - Introduction to deep learning and data mining.

11:00 - 12:00  Alexei Tsygvintsev (Superior National School, Lyon, France) - Nonlinear dynamical systems, chaos theory and artificial neural networks: obstacles and opportunities.

12:00 - 13:30  Lunch.

13:30 - 14:30  David Menéndez Hurtado (Stockholm University, Sweden) - Machine learning aids in the prediction of protein structures.

14:30 - 15:30  Leonardo Franco (Malaga University, Spain) - Applying deep learning to biomedical problems.

15:30 - 16:00  Coffee break.

16:00 - 17:00  Simeone Marino (Michigan University, USA) - Uncertainty and Sensitivity Analysis with Big Data.

17:00 - 18:00  William Ritchie (Institute of Human Genetics, Montpellier, France) - AI, Genomics and Medicine.

18:00 - 18:30  Round table - Could deep learning solve any problem in Biology and Medicine?

Thursday, February 7, 2019

09:00 - 10:00  Martin Prodel (HEVA, Lyon, France) - Advanced data analyses in cancerology using large databases: examples using the French SNDS.

10:00 - 11:00  Luc Thomas (Cancer Research Center of Lyon, France) - Artificial intelligence and skin cancer diagnosis: achievements and unsolved questions.

11:00 - 11:30  Coffee break.

11:30 - 12:30  Eric Guichard (Superior National School of Information Sciences and Libraries, Lyon, France) - AI: dreams and philosophical opportunities.