



REAL-time monitoring and mitigation of nonlinear effects in optical **NET**works (REAL-NET)

Grant Agreement ID: 813144

Mini-Symposium on Introduction to Machine Learning

7th – 8th September 2020

Webex, online

Day 1 – 7th September 2020

CET, Paris, Berlin, Rome time

09:20 - 09:30 *Opening*

09:30 - 11:30 **Assoc. Prof. Darko Zibar**, Dep. of Photonics Engineering, DTU FOTONIK. **Introduction to machine learning and neural networks in particular.** Apart from the lecture, the ESRs will need to spend some time implementing some simple neural networks.

11:30 - 11:45 *Break*

11:45 - 13:45 **Assoc. Prof. Darko Zibar.** Continuation of the talk

13:45 - 15:00 *Lunch*

15:00 - 16:00 **Dr. Kamalian-Kopae Morteza**, Research Associate at the Institute of Photonics at Aston University. **Machine learning-based equalisation in fibre-optic communication.**

16:00 - 16:15 *Break*

16:15 - 17:15 **Dr. Milad Sefidgaran**, Postdoctoral fellow at Telecom Paris. **Information theory of the optical fiber.**

17:15 - 17:30 *Closing*

Day 2 – 8th September 2020

CET, Paris, Berlin, Rome time

14:20 - 14:30 *Opening*

14:30 - 15:30 **Prof. David Saad**, professor in mathematics at Aston University. **Machine learning beyond the hype – principled methods for photonics applications.**

15:30 - 15:45 *Break*

15:45 - 16:45 **Dr. Jelena Pesic & Dr. Matteo Lonardi**, Nokia Bells Labs. **Will Machine Learning mitigate the extra cost of increase in capacity?**

16:45 - 17:00 *Break*

17:00 - 18:00 **Prof. Nathan Kutz**, Prof. Applied Mathematics, University of Washington. **Machine Learning for Science: Data-Driven Discovery Methods for Governing equations, Coordinates and Sensors.**

18:00 - 18:10 *Closing*