Advanced Course on Data Science and Machine Learning – ACDL 2018

Certosa di Pontignano – Siena, Tuscany, Italy

19–23 July 2018

Arrival: July 18, 2018

Departure: July 24, 2018

	Thu, 19 July	Fri, 20 July	Sat, 21 July	Sun, 22 July	Mon, 23 July
08:00 – 09:00	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
09:00 – 9:50	**Y. Bengio**	**P. Norvig**	**M. Gori**	**R. Belavkin**	**A. Pentland**
09:50 – 10:40	**M. Ranzato**	**Yi-Ke Guo**	**S. Butenko**	**S. Butenko**	**F. Aleskerov**
10:40 – 11:20	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:20 – 12:10	**Y. Bengio**	**Yi-Ke Guo**	**S. Butenko**	**P. Pardalos**	**A. Pentland**
12:10 – 13:00	**M. Ranzato**	**P. Pardalos**	**M. Gori**	**R. Belavkin**	**F. Aleskerov**
13:00 – 14:30	Lunch	Lunch	Lunch	Lunch	Lunch
14:30 – 15:20	**Y. Bengio**	**P. Norvig**	**M. Gori**	**P. Pardalos**	Social Tour in Siena & Social Dinner
15:20 – 16:10	**M. Ranzato**	**Panel Discussion "Ask me anything on the Future of Machine Learning" Y. Bengio, P. Norvig & Marc'Aurelio Ranzato.**	**M. Gori**	Oral Session III	
16:10 – 16:50	Coffee break	Coffee break	Coffee break	Coffee break	
16:50 – 17:40	Poster Session	Oral Session I	Oral Session II	Free	
17:40 – 18:30					
18:30 – 19:20					
19:30 – 21:00	Group Photo & Dinner	Dinner	Dinner	Dinner	

REGISTRATION — Registration Desk
The registration desk will be located close to the Main Conference Room.
Upon registration at the desk, you will receive your badge, vouchers, and summer school materials. To facilitate the process please bring with you your registration confirmation. You are kindly requested to wear your name badge during all events of the conference.

ACDL 2018 is a full-immersion advanced course on cutting-edge advances in data science and machine learning. The course provides a stimulating environment for doctoral students, early career researches and industry leaders. The school will be lectured by world-renowned experts of data science and machine learning.

WiFi Name: Silver (it is an open Wi-Fi); if you have login and password you can use Eduroam.

Poster Session, July 19, 16:50 – 19:20

For your poster, a board will be provided which measures 90cm tall by 70cm wide. You need to print and bring with you the poster to the school. Push tacks or velcro adhesive will be provided at the conference to mount your poster to the board.

Oral Sessions

The ACDL 2018 Talks are exactly 30 minutes long: approximately 25 minutes for the talk + 5 minutes for the questions.

Oral Session I, July 20, 16:50 – 19:20

16:50 – 17:20 *Bayesian Network Edge and Structure Learning Using Convolutional Neural Networks*
Mike Taylor
City University London, United Kingdom

17:20 – 17:50 *Exploring Deep Learning Capabilities and Applicability*
Stefano Marrone, Carlo Sansone
University of Naples - Federico II, Italy

17:50 – 18:20 *Deep hidden Markov models for electricity markets*
Carlo Lucheroni
University of Camerino, Italy

18:20 – 18:50 *Prosit: Deep learning enables high-accuracy and proteome wide prediction of peptide tandem mass spectra*
Siegfried Gessulat, Tobias Schmidt, Daniel Zolg, Martin Frejno, Hans-Christian Ehrlich, Stephan Aiche, Bernhard Küster, Mathias Wilhelm
Technical University of Munich, Germany

18:50 – 19:20 Discussion

Oral Session II, July 21, 16:50 – 19:20

16:50 – 17:20 *M-FF: applying Gaussian Processes to build efficient force fields for molecular dynamics*
Claudio Zeni
King's College London, United Kingdom

17:20 – 17:50 *Learning Multivariate Shapelets with Multi-Layer Neural Networks*
Roberto Medico, Joeri Ruyssinck, Dirk Deschrijver, Tom Dhaene
Ghent University, Belgium

17:50 – 18:20 *Learning the optimal value of Mathematical Optimization problems*
Martina Fischetti[1], Marco Fraccaro[2]
[1]Vattenfall BA Wind, Denmark
[2]DTU Compute Department, Danish Technical University, Denmark

18:20 – 18:50 *Exploring the use of neural networks for prediction of toxicities*
Jennifer Hemmerich, Ece Asilar, Gerhard F. Ecker
University of Vienna, Austria

18:50 – 19:20 Discussion

Oral Session III, July 22, 15:20 – 16:20

15:20 – 15:50 *On the use of Renyi min-entropy for feature selection*
Catuscia Palamidessi[2], **Marco Romanelli**[1,2,3]
[1]Ecole Polytechnique, [2]INRIA, [3]Universite Paris-Saclay, France

15:50 – 16:20 *Convolutional Neural Network for pixel-wise skyline detection*
Darian Frajberg, Piero Fraternali, Rocio Nahime Torres
Politecnico di Milano, Italy