

## 5th Advanced Course on Data Science & Machine Learning – ACDL 2022

*Certosa di Pontignano – Castelnuovo Berardenga (Siena) Tuscany, Italy*

22 – 26 August 2022

<https://acdl2022.icas.cc/>

[lod@icas.cc](mailto:lod@icas.cc)

*Schedule Ver. 6.0 (3 pages) – August 10*

	Mon, 22 August	Tue, 23 August	Wed, 24 August	Thu, 25 August	Fri, 26 August
07:30 – 09:00	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
09:00 – 09:50	Thomas Viehmann	Alfredo Canziani	Alfredo Canziani	Danica Kragic	Žiga Avsec
09:50 – 10:40	Thomas Viehmann	Alfredo Canziani	Alfredo Canziani	Danica Kragic	Žiga Avsec
10:40 – 11:20	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
11:20 – 12:10	Thomas Viehmann	Alfredo Canziani	Alfredo Canziani	Panos Pardalos	Joaquin Vanschoren
12:10 – 13:00	Thomas Viehmann	Alfredo Canziani	Alfredo Canziani	Yukie Nagai	Joaquin Vanschoren
13:00 – 15:00	Lunch	Lunch	Lunch	Lunch	Lunch
15:00 – 15:50	Thomas Viehmann	Alfredo Canziani	Social Tour  Guided Visit of Siena	Edith Elkind	Bruno Loureiro
15:50 – 16:40	Thomas Viehmann	Alfredo Canziani		Yukie Nagai	Bruno Loureiro
16:40 – 17:20	Coffee break	Coffee break		Coffee break	Coffee break
17:20 – 18:10	Thomas Viehmann	17:20 Guided Visit of the Certosa di Pontignano & 18:20 Wine Tasting		Marco Gori	Talks
18:10 – 19:00	Thomas Viehmann		Edith Elkind	Roman Belavkin	
19:00 – 19:50	Thomas Viehmann		Roman Belavkin	Jazz Concert	
19:50 – 21:50	Dinner	Dinner	Dinner	Dinner	Social Dinner
21:50 – 22:50	Thomas Viehmann (dessert wine & biscuits)	Alfredo Canziani (dessert wine & biscuits)	Classical Music Concert	Talks (dessert wine & biscuits)	

**Arrival: August 21 (Dinner at 20:00)**

**Group Photo: August 24 @ 14:45**, in the centre of the main cloister (near the well), just before leaving for the social tour.

**Departure: August 27 (Breakfast 07:30-09:00)**

**REGISTRATION.** The registration desk will be located close to the Main Conference Room. Upon registration at the desk, you will receive your badge, and course materials. To facilitate the process please bring with you the *registration confirmation*. You are kindly requested to wear your name badge during all events of the course. **ZOOM: for ACDL 2022 participants using remote connection.** As you know, ACDL 2022 is a hybrid event: in person for those who can come to Tuscany, and online for those who want to attend virtually. ACDL 2022 (for participants using remote connection) will use Zoom (<https://zoom.us>). The online lectures and tutorials (e.g., live presentations or recorded ones) will be made possible. ACDL 2022 virtual participants will receive the link and the password. **WiFi Name:** Silver (it is an open Wi-Fi); if you have login and password you can use Eduroam.

Tutorials:	Lectures:
Roman Belavkin, Middlesex University London, UK “ <i>Mathematics for Deep Learning</i> ”	Žiga Avsec, DeepMind, London, UK
Alfredo Canziani, New York University, USA “ <i>Foundations of Deep Learning</i> ”	Edith Elkind, University of Oxford, UK
Bruno Loureiro, EPFL, Switzerland “ <i>Statistical Physics view of Theory of Machine Learning</i> ”	Marco Gori, University of Siena, Italy
Thomas Viehmann, Germany “ <i>Introduction to PyTorch</i> ”	Danica Kragic Jensfel, KTH, Sweden
	Yukie Nagai, The University of Tokyo, Japan
	Panos Pardalos, University of Florida, USA
	Joaquin Vanschoren, TU/e, The Netherlands

**Wed, 24 August (21:50 – 22:55) – Talks**

Hugo Cui, EPFL, Switzerland

*“Error Rates for Kernel Methods under Source and Capacity Conditions”*

Tanja Sarcevic, SBA Research, Austria

*“Ownership Protection in Machine Learning Processes”*

Daria Alexander, Radboud University, Netherlands

*“ORCAS-I: Queries Annotated with Intent using Weak Supervision”*

Lukas Stankevičius, Kaunas University of Technology, Lithuania

*“Grammatical Error Correction with Transformer Models”*

Marc Horlacher, Helmholtz Center Munich, Denmark

*“RBPNet: Understanding Protein-RNA Interactions via Sequence-to-Signal Learning”*

Kyle Nickerson, Memorial University of Newfoundland, Canada

*“Banksformer: A Deep Generative Model for Synthetic Transaction Sequences”*

Niyati Rawal, University of Modena and Reggio Emilia, Italy

*“Generating Language Instructions for Vision-And-Language Navigation”*

Mateusz Kania, Silesian University of Technology, Poland

*“Clustering profiles of somatic mutation count data in cancer tissues”*

Francesca Da Ros, University of Udine, Italy

*“A multi-objective biased random-key genetic algorithm for the optimal siting of emergency vehicles in rural areas”*

Marco Postiglione, University of Naples Federico II, Italy

*“Knowledge Distillation for Multi-Task Biomedical Named Entity Recognition”*

**Fri, 26 August (19:00 – 19:50) – Talks**

Margot Geerts, KU Leuven, Belgium

*“A Geospatial Decision Tree Learning Algorithm”*

Kerstin von Borries, Technical University of Denmark, Denmark

*“Current challenges for applying Machine Learning in life cycle toxicity assessment”*

Michiel Dhont, Sirris/VUB, Belgium

*“Dynamic Imputation Methodology for Multi-source Streaming Mobility”*

Nils Wagner, Technical University of Munich, Germany

*“Aberrant splicing prediction across human tissues”*

Markus Tiefenthaler, Medical University of Innsbruck, Austria

*“Deep learning approach for segmentation of cervical arteries in CTA images”*

Matthias Schwab, Medical University of Innsbruck, Austria

*“Fully automated left ventricular late gadolinium enhancement detection by a convolutional neuronal network in chronic myocardial infarction”*

Marija Todorčić, Ericsson Nikola Tesla d.d., Croatia

*“Comparison of Similarity Measures for Trajectory Clustering - Aviation Use Case”*

Stephane Chretien, Université Lumière Lyon 2, France

*“Benign overfitting : analysis of the generalisation paradox”*