

# DeepLearn 2023 Spring

## 9th INTERNATIONAL SCHOOL ON DEEP LEARNING

Bari, Italy · April 03-07, 2023

### Keynotes



**Vipin Kumar**  
**University of Minnesota**  
Knowledge-Guided Deep Learning: A Framework for Accelerating Scientific Discovery



**William S. Noble**  
**University of Washington**  
Deep Learning Applications in Mass Spectrometry Proteomics and Single-Cell Genomics



**Emma Tolley**  
**Swiss Federal Institute of Technology Lausanne**  
Physics-Informed Deep Learning

### Courses



**Babak Ehteshami Bejnordi**  
**Qualcomm AI Research**  
[intermediate/advanced] Conditional Computation for Efficient Deep Learning with Applications to Computer Vision, Mult...



**Sergei V. Gleyzer**  
**University of Alabama**  
[introductory/intermediate] Machine Learning Fundamentals and Their Applications to Very Large Scientific Data: Rare S...



**Jacob Goldberger**  
**Bar-Ilan University**  
[introductory/intermediate] Calibration Methods for Neural Networks



**Christoph Lampert**  
**Institute of Science and Technology Austria**  
[intermediate] Training with Fairness and Robustness Guarantees



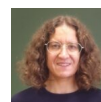
**Yingbin Liang**  
**Ohio State University**  
[intermediate/advanced] Bilevel Optimization and Applications in Deep Learning



**Xiaoming Liu**  
**Michigan State University**  
[intermediate] Deep Learning for Trustworthy Biometrics



**Michael Mahoney**  
**University of California Berkeley**  
[intermediate] Practical Neural Network Theory: From Statistical Mechanics Basics to Working with State of the Art Mod...



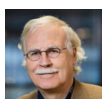
**Liza Mijovic**  
**University of Edinburgh**  
[introductory/intermediate] Deep Learning & the Higgs Boson: Classification with Fully Connected and Adversarial N...



**Bhiksha Raj**  
**Carnegie Mellon University**  
[introductory] An Introduction to Quantum Neural Networks [with Rita Singh, Daniel Justice and Prabh Baweja]



**Holger Rauhut**  
**RWTH Aachen University**  
[intermediate] Gradient Descent Methods for Learning Neural Networks: Convergence and Implicit Bias



**Bart ter Haar Romeny**  
**Eindhoven University of Technology**  
[intermediate/advanced] Explainable Deep Learning from First Principles



**Tara Sainath**  
**Google**  
[advanced] E2E Speech Recognition [virtual]



**Martin Schultz**  
**Research Centre Jülich**  
[intermediate] Deep Learning for Air Quality, Weather and Climate



**Adi Laurentiu Tarca**  
**Wayne State University**  
[intermediate] Machine Learning for Cross-Sectional and Longitudinal Omics Studies



**Michalis Vazirgiannis**  
**Polytechnic Institute of Paris**  
[intermediate/advanced] Graph Machine Learning with GNNs and Applications



**Atlas Wang**  
**University of Texas Austin**  
[intermediate] Sparse Neural Networks: From Practice to Theory



**Guo-Wei Wei**  
**Michigan State University**  
[introductory/advanced] Discovering the Mechanisms of SARS-CoV-2 Evolution and Transmission [virtual]



**Lei Xing**  
**Stanford University**  
[intermediate] Deep Learning for Medical Imaging and Genomic Data Processing: from Data Acquisition, Analysis, to Biom...



**Xiaowei Xu**  
**University of Arkansas Little Rock**  
[intermediate/advanced] From Transformer to ChatGPT and beyond: How Large Language Models Revolutionize AI?

More info: <https://deeplearn.irdta.eu/2023sp>



University of Bari "Aldo Moro"



Rovira i Virgili University



Institute for Research Development, Training and Advice (IRDTA)