# **DeepLearn 2022 Spring** 5th INTERNATIONAL SCHOOL ON DEEP LEARNING

Guimarães, Portugal · April 18-22, 2022

### Keynotes



**Kate Smith-Miles University of Melbourne** 

Stress-testing Algorithms via Instance Space Analysis



Mihai Surdeanu **University of Arizona** 

Explainable Deep Learning for Natural Language Processing



**Zhongming Zhao** University of Texas, Houston

Deep Learning Approaches for Predicting Virus-Host Interactions and Drug Response [virtual]





**Eneko Agirre** 

**University of the Basque Country** 

[introductory/intermediate] Natural Language Processing in the Pretrained Language Model Era



Altan Çakır

**Istanbul Technical University** 

[introductory] Introduction to Deep Learning with Apache Spark



**Rylan Conway** 

**Amazon** 

[introductory/intermediate] Deep Learning for Digital Assistants



Jianfeng Gao **Microsoft Research** 

[introductory/intermediate] Neural Approaches to Conversational Information Retrieval



**Bohyung Han Seoul National University** 

[introductory/intermediate] Robust Deep Learning



Lina J. Karam

**Lebanese American University** 

[introductory/intermediate] Deep Learning for Quality Robust Visual Recognition



**Kyle Keane** 

Massachusetts Institute of Technology

[introductory] An Introductory Course on Machine Learning and Deep Learning with Mathematica/Wolfram Language



**Xiaoming Liu** 

**Michigan State University** 

[intermediate] Deep Learning for Trustworthy Biometrics



Jennifer Ngadiuba

**Fermi National Accelerator Laboratory** 

[intermediate] Ultra Low-latency and Low-area Machine Learning Inference at the Edge



Lucila Ohno-Machado

University of California, San Diego

[introductory] Use of Predictive Models in Medicine and

**Biomedical Research** 



Bhiksha Raj

**Carnegie Mellon University** 

[introductory] Quantum Computing and Neural Networks



### **Bart ter Haar Romeny**

**Eindhoven University of Technology** 

[intermediate] NeuroMath - Explainable AI from First Principles



**Kaushik Roy Purdue University** 

[intermediate] Re-engineering Computing with Neuro-inspired Learning: Algorithms, Architecture, and Devices



Virginia Polytechnic Institute and State University

[intermediate/advanced] Machine Learning for Wireless Communications: Challenges and Opportunities



**Yvan Saeys** 

**Ghent University** 

[introductory/intermediate] Interpreting Machine Learning Models



**Martin Schultz** 

Jülich Research Centre [intermediate] Deep Learning for Air Quality, Weather and

Climate



### **Sofia Vallecorsa**

**European Organization for Nuclear Research** 

[introductory/intermediate] Generative Models in High Energy Physics: Examples from CERN



### Michalis Vazirgiannis

École Polytechnique

[intermediate/advanced] Machine Learning with Graphs and Applications



## **Guowei Wei**

**Michigan State University** 

[introductory/advanced] Integrating AI, Math and Experimental Data to Forecast Emerging SARS-CoV-2 Variants [virtu...



Xiaowei Xu

**University of Arkansas, Little Rock** 

[intermediate/advanced] Deep Learning for NLP and Causal



**Guoying Zhao** 

**University of Oulu** 

[introductory/intermediate] Vision-based Emotion AI

More info: <a href="https://deeplearn.irdta.eu/2022sp">https://deeplearn.irdta.eu/2022sp</a>













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