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13th INTERNATIONAL SCHOOL ON DEEP LEARNING

DeepLearn 2026

Orléans, France

July 20-24, 2026

https://deeplearn.irdta.eu/2026/

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Co-organized by:

University of Orléans

Centre Val de Loire Doctoral College

Institute for Research Development, Training and Advice – IRDTA
Luxembourg/London

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Early registration: October 14, 2025

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SCOPE:

DeepLearn 2026 will be a research training event with a global scope aiming at updating participants on the most recent advances in the critical and fast developing area of deep learning. Previous events were held in Bilbao, Genova, Warsaw, Las Palmas de Gran Canaria, Guimarães, Luleå, Bournemouth, Bari, and Porto.

Deep learning is a branch of artificial intelligence covering a spectrum of current frontier research and industrial innovation that provides more efficient algorithms to deal with large-scale data in a huge variety of environments: computer vision, neurosciences, speech recognition, language processing, human-computer interaction, drug discovery, biomedicine and healthcare, medical image analysis, recommender systems, advertising, fraud detection, robotics, games, business and finance, biotechnology, physics and astrophysics, biometrics, communications, climate sciences, geographic information systems, signal processing, genomics, materials design, video technology, social systems, earth and sustainability, mathematical proofs, etc. etc.

The field is also raising a number of relevant questions about efficiency and robustness of the algorithms, explainability, transparency, interpretability, risks and

safety, as well as important ethical concerns at the frontier of current knowledge that deserve careful multidisciplinary discussion.

Most deep learning subareas will be displayed and main challenges identified through 18 four-hour and a half courses, 2 keynote lectures, 1 round table, and a hackathon competition among participants. Renowned academics and industry pioneers will lecture and share their views with the audience. The organizers are convinced that outstanding speakers will attract the brightest and most motivated students. Face to face interaction and networking will be main ingredients of the event. It will be also possible to fully participate in vivo remotely.

ADDRESSED TO:

Graduates, postgraduates and industry practitioners will be typical profiles of participants. However, there are no formal pre-requisites for attendance in terms of academic degrees, hence people less or more advanced in their career will be welcome as well.

Since there will be a variety of levels, specific knowledge background may be assumed for some of the courses.

Overall, DeepLearn 2026 is addressed to students, researchers and practitioners who want to keep themselves updated about recent developments and future trends. All will surely find it fruitful to listen to and discuss with major researchers, industry leaders and innovators.

VENUE:

DeepLearn 2026 will take place in Orléans, located in the heart of the Loire Valley, which was declared by UNESCO a World Heritage Site in 2000. The venue will be:

University of Orléans
Faculty of Law, Economics and Management
11 rue de Blois
45100 Orléans, France

https://www.univ-orleans.fr/en

STRUCTURE:

3 courses will run in parallel during the whole event. Participants will be able to freely choose the courses they wish to attend as well as to move from one to another.

All lectures will be videorecorded. Participants will be able to watch them again for 45 days after the event.

An open session will give participants the opportunity to present their own work in progress in 5 minutes. Also companies will be able to present their industrial developments for 10 minutes.

The school will include a hackathon, where participants will be able to work in teams to tackle several machine learning challenges.

Full live online participation will be possible. The organizers highlight, however, the importance of face to face interaction and networking in this kind of research training event.

KEYNOTE SPEAKERS:

Yingbin Liang (Ohio State University), Theoretical Characterization of Training Transformers for Chain-of-Thought Reasoning

Le Song (Mohamed bin Zayed University of Artificial Intelligence), Multiscale Foundation Models for Biology

PROFESSORS AND COURSES: (to be completed)

Yuejie Chi (Yale University), [introductory/intermediate] Statistical and Algorithmic Foundations of Reinforcement Learning

Bo Han (Hong Kong Baptist University), [introductory/intermediate] Trustworthy Machine Learning from Data to Models

Jiawei Han (University of Illinois Urbana-Champaign), [intermediate] Structure-Guided, Theme-Based Knowledge Discovery with Large Language Models

Mingyi Hong (University of Minnesota), [intermediate] Bilevel Optimization: Theory, Algorithms and Application in AI

Cho-Jui Hsieh (University of California Los Angeles), [intermediate/advanced] Optimizers for Large Language Model Training

Furong Huang (University of Maryland), tba

Tara Javidi (University of California San Diego), [intermediate] Active Physical Intelligence for Industrial Scale Monitoring

Zhijin Qin (Tsinghua University), [intermediate/advanced] Semantic Communications

Masashi Sugiyama (University of Tokyo), [intermediate] Learning from Imperfect Supervision

Zhangyang (Atlas) Wang (University of Texas Austin), [intermediate/advanced] Beyond Sparsity or Low Rank: In-Between Neural and Symbolic Learning

Tong Zhang (University of Illinois Urbana-Champaign), [introductory/intermediate] Reinforcement Learning for Foundation Models

Jun Zhu (Tsinghua University), [introductory/advanced] tba

OPEN SESSION:

An open session will collect 5-minute voluntary oral presentations of work in progress by participants.

They should submit a half-page abstract containing the title, authors, and summary of the research to david@irdta.eu by July 12, 2026.

INDUSTRIAL SESSION:

A session will be devoted to 10-minute demonstrations of practical applications of deep learning in industry.

Companies interested in contributing are welcome to submit a 1-page abstract containing the program of the demonstration and the logistics needed. People in charge of the demonstration must register for the event.

Abstracts have to be submitted to david@irdta.eu by July 12, 2026.

HACKATHON:

A hackathon will take place, where participants can voluntarily work in teams to tackle several machine learning challenges. They will be coordinated by Professor Sergei V. Gleyzer (University of Alabama). The challenges will be released 2 weeks before the beginning of the school. A jury will judge the submissions and the winners of each challenge will be announced by the end of August 2026. The winning teams will receive a modest monetary prize and the runners-up will get a certificate.

SPONSORS:

Companies/institutions/organizations willing to be sponsors of the event can download the sponsorship leaflet from

https://deeplearn.irdta.eu/2026/sponsors/

ORGANIZING COMMITTEE:

Karim Abed-Meraim (Orléans, local co-chair)
Sergei V. Gleyzer (Tuscaloosa, hackathon chair)
Meryem Jabloun (Orléans, local co-chair)
Carlos Martín-Vide (Tarragona, program chair)
Santiago Montes (Tarragona, webpage)
Sara Morales (Luxembourg, finances)
Philippe Ravier (Orléans, local chair)
David Silva (London, organization chair)

REGISTRATION:

It has to be done at

https://deeplearn.irdta.eu/2026/registration/

The selection of 6 courses requested in the registration template is only tentative and non-binding. For logistical reasons, it will be helpful to have an estimation of the respective demand for each course.

Since the capacity of the venue is limited, registration requests will be processed on a first come first served basis. The registration period will be closed and the on-line registration tool disabled when the capacity of the venue will have got exhausted. It is highly recommended to register prior to the event.

FEES:

Fees comprise access to all program activities and lunches.

There are several early registration deadlines. Fees depend on the registration deadline.

The fees for on site and for online participation are the same.

ACCOMMODATION:

Accommodation suggestions will be available in due time at

https://deeplearn.irdta.eu/2026/accommodation/

CERTIFICATE:

A certificate of successful participation will be delivered indicating the number of hours of academic activities (40). This should be sufficient for those participants who plan to request ECTS recognition from their home university.

QUESTIONS AND FURTHER INFORMATION:

david@irdta.eu

ACKNOWLEDGMENTS:

Université d'Orléans

Collège Doctoral Centre-Val de Loire

Universitat Rovira i Virgili

Institute for Research Development, Training and Advice – IRDTA, Luxembourg/London