



**ICTP** | International Centre for Theoretical Physics  
**SAIFR** | South American Institute for Fundamental Research

**Venue: NCC-UNESP – São Paulo, Brazil**



## TOPICS

**Neural Networks**

**Convolutional Neural Networks**

**Computer Vision**

**Natural Language Processing**

**Generative Models**

**Sequential and Recursive Learning**

**High Performance Computing**

**HPC for Machine Learning  
(GPU Accelerated Machine Learning)**

**Profiling and Benchmarking  
Machine Learning Models**

Machine Learning (ML) is poised to drive critical changes in our society over the coming decades. The versatility of ML tools enables us to address a wide variety of challenges that could significantly improve our lives. From enhancing medical diagnosis to providing smart assistance for the disabled and elderly, and developing solutions for public safety, the applications are far-reaching. The positive impact of these innovations is expected to raise awareness and guide the creation of new public policies.

In this context, training individuals in advanced ML topics is crucial for the success and development of the field. The School on Data Science and Machine Learning aims to equip participants with knowledge of modern machine learning techniques, their strengths and limitations, and their application across various domains.

Our program is particularly designed for advanced PhD students working towards the completion of their thesis projects, as well as early-career postdoctoral researchers. Participants will explore the fundamentals of machine learning, progressing from introductory concepts to advanced topics.

The school combines theoretical lectures with hands-on sessions, allowing participants to apply these concepts to real-world problems. This practical approach ensures that attendees not only understand the theory, but also gain experience in implementing ML solutions.

This event is co-organized with the Advanced Institute for Artificial Intelligence (AI2), bringing together expertise from academia and industry.

There is no registration fee and limited funds are available for travel and local expenses.

**Application deadline:  
September 21, 2024**

**Online application  
and more information:  
[ictp-saifr.org/dsml2024](https://ictp-saifr.org/dsml2024)**



**Advanced  
Institute for  
Artificial  
Intelligence**

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