Colloqui della Classe di Scienze

Anno Accademico 2023/2024

Sala Stemmi
Palazzo della Carovana
Scuola Normale Superiore
Piazza dei Cavalieri, 7 - PISA

8 MAY 2024
h 3.00 p.m.

MARCO GORI

Univ. Siena and International 3IA Chair, U. Côte d'Azur

An Introduction to Cognidynamics

ABSTRACT:

In order to capture those natural processes and prospect an alternative path to Machine Learning, in this talk I will give a preliminary view of cognitive systems whose environmental interactions are driven by the minimization of a functional over time. This functional, that is referred to as cognitive action, replaces the classic Machine Learning statistical functional risk. I use the apparatus of Theoretical Physics and Optimal Control to derive unified laws of cognition for learning and inference and show that Hamiltonian equations in their causal dissipative form approximate the optimal solution over the entire data collection of the agent life. This comes from imposing the evolution on a Hamiltonian track which gives rise to a computational scheme for both focus of attention and conscious actions.

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INFO:
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in presence and also available on **Zoom**