

KAVLI INSTITUTE FOR THEORETICAL PHYSICS

Presents

The Seventy-Second KITP Public Lecture

Sponsored by Friends of KITP

Marc Mézard

Artificial intelligence: success, limits, myths and threats

By now, everybody should know that Artificial Intelligence is about to produce a dramatic impact on many sectors of human activity. In the last ten years, thanks to the development of machine learning in “deep networks”, we have experienced spectacular breakthroughs in diverse applications such as automatic interpretation of images, speech recognition, go and chess playing. Most importantly, algorithms are now competing with the best professionals at analyzing skin cancer symptoms or detecting specific anomalies in radiology; and much more is to come. Worrying perspectives are frequently raised, from massive job destruction to autonomous decision-making “warrior” robots.

In this talk, we shall open the black box of deep networks and explore how they are programmed to learn from data by themselves. This will allow us to understand their limits, to question whether their achievements have anything to do with “intelligence”, and to reflect on the foundations of scientific intelligence.

About the Speaker

Marc Mézard is a theoretical physicist. He received a PhD from Ecole normale supérieure in Paris, did a post-doc in Rome, and became the head of the statistical physics group in Paris-Sud University. He has been the director of Ecole normale supérieure since 2012. His main field of research is the statistical physics of disordered systems and its use in various branches of science – biology, economics and finance, information theory, computer science, statistics, and signal processing. In recent years his research has focused on information processing in neural networks. He has received the Lars Onsager prize from the American Physical Society, the Humboldt-Gay-Lussac prize, the silver medal of CNRS and the Ampere prize of the French Academy of Science. He is a member of the European Academy of Science.



Admission is Free
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by January 25, 2019

at:

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(805) 893-6350

Reserved seats are held
until 6:50 PM

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accommodate a disability, call the
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*The KITP gratefully acknowledges its
many friends in the community.*

Wednesday, January 30, 2019
7:00 PM (reserved seats held until 6:50 PM)

Kavli Institute for Theoretical Physics, Main Seminar Room

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