

Séminaire général de physique

Physics and machine learning

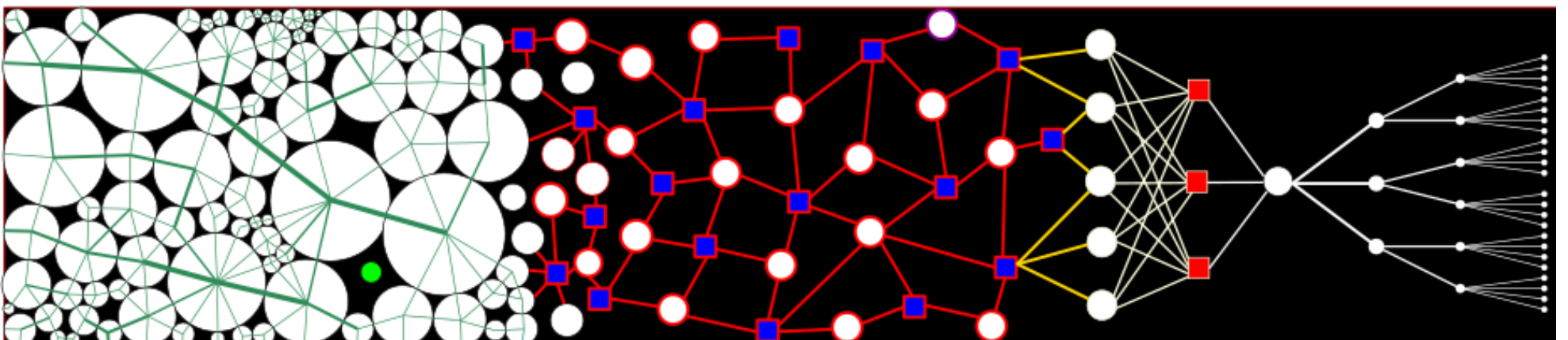
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Amphi PGDG, Vendredi 19 octobre 2018, 10h

(café-croissants à partir de 9h40)

Over the last few years, machine learning has become one of the most important techniques in science, revolutionizing many areas ranging from signal processing to computer vision. A recent burst of activity in applying machine learning to tackle fundamental questions in physics suggests that these techniques may soon become as common in physics as numerical simulations or calculus: a new tool in the toolbox of physicists. Indeed the ongoing developments in machine learning offer the potential to open new routes to discovery. Simultaneously, concepts from physics can be used to understand better some of the machine learning methods and inspire new ones.



In this seminar I will discuss and introduce basic techniques of machine learning in several areas, and some of their applications in physics, and I will also focus on the complementary developments in the application of physics concepts to the theory and practice of machine learning, especially in the context of statistical physics.