Contribution ID: **20** Type: **not specified**

Deep Learning and its Applications in the Natural Sciences

Wednesday 11 November 2015 09:45 (45 minutes)

Starting from a brief historical perspective on scientific discovery, this talk will review some of the theory and open problems of deep learning and describe how to design efficient feedforward and recursive deep learning architectures for applications in the natural sciences. In particular, the focus will be on multiple particle problems at different scales: in biology (e.g. prediction of protein structures), chemistry (e.g. prediction of molecular properties and reactions), and high-energy physics (e.g. detection of exotic particles, jet substructure and tagging, "dark matter and dark knowledge")

Presenter: BALDI, Pierre (UCI)

Session Classification: Wednesday Morning Session