



University of Camerino
School of Science and Technology

Aula A Edificio di Matematica
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From Machine Learning to High Energy Physics

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I will briefly introduce the main concepts of Machine Learning, and discuss its recent successes and some applications to science. I will describe the importance of the two-sample statistical test as a discovery tool, and provide details of my work in progress on developing Machine Learning algorithms for it. In addition to enable one to check the statistical compatibility between two data samples, the proposed method allows to characterize parameter regions where discrepancies are significant. An overview of the main open problems in high-energy physics and an explicit application of the proposed method to them will also be provided.

Coordinator: prof David Vitali