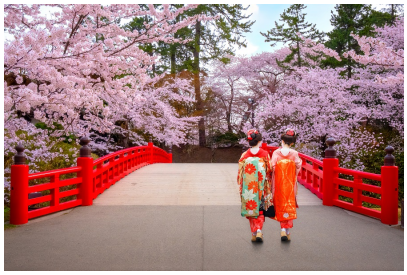

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Machine learning in High Energy Physics

jeudi 30 mars 2023 09:20 (25 minutes)

Machine learning has come a long way from classification and regression tasks in science and in particle physics in particular. It has made formidable quantum leaps on several fronts in the recent years which open ever more doors for breakthroughs in science. The talk will discuss the opportunities in High Energy Physics for machine learning to facilitate better use of human and computational resources and to improve the capacity to extract information from the unique LHC data set. Examples will include the computational challenge to simulate billions of LHC particle collisions, the search for feeble anomalous signals in a deluge of data or inferring the underlying theory of nature by use of data which has been convolved with complex detector responses.

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