

6th Summer School on INtelligent signal processing for FrontIer Research and Industry



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PHYSICS POTENTIAL at HIGH ENERGY HADRON COLLIDERS

Friday 27 August 2021 18:00 (45 minutes)

It is an extremely exciting and important period in the HEP Fundamental Research field; the decisions on the future machines to be built should be well underway by the time of the school.

An important EU strategy workshop was held January 21-25, 2020 at Bad Honhef (Germany). The outcomes were presented in June 2020 (see link here below). Besides decisions on the Chinese side are also underway. Therefore the detailed program of this keynote session will be available in due time following what will be the status by June 2021.

This second session on the Future HEP Machines will be mainly devoted to the status, schedule and main Physics and Technical challenges to be confronted for the high energy hadron colliders in projects both at CERN and in China. It will present the status of the FCC-hh (at CERN) and SppC (in China) projects, including the active worldwide R&D on High Field Magnets.

The new developments on a Muon Collider will be also included in this session.

THIS FIRST LECTURE in this Keynote session will give an overview of the Physics potential of high energy hadron colliders in projects. At the end, there will be a brief overview on the Physics reach with a high energy Muon collider.

Presenter: Prof. GROJEAN, Christophe (DESY (Hamburg) and Humboldt University (Berlin))

Session Classification: INTRODUCTION TO ACCELERATORS