

**Institut für Signalverarbeitung
und Sprachkommunikation (4420)**

Univ.-Prof. DI Dr. Franz Pernkopf

Inffeldgasse 16c/EG
A-8010 Graz, Austria

Tel.: +43 316 873-4436
Fax: +43 316 873-104436

pernkopf@tugraz.at
<http://www.spsc.tugraz.at>

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GASTVORTRAG von Herrn Hon.Prof. Dr. Rüdiger Schmidt, TU Darmstadt und CERN

am **Donnerstag, 18.01.2024** um **14:15 Uhr**
im **Seminarraum IEG134, Inffeldgasse 16c/EG**

Titel:

The Large Hadron Collider at CERN, advancing fundamental physics

Abstract:

CERN, the European Organization for Nuclear Research, is dedicated to research with the aim of understanding the basic laws of physics and providing insights into the origins of the universe.

Over the years, progress in comprehending these laws has been greatly influenced by advancements in particle accelerators, particularly through the use of particle colliders.

The LHC, located at CERN, represents the most advanced particle collider globally and is an incredibly complex machine. Its existence is made possible through the application of numerous advanced technologies.

This presentation offers a comprehensive overview of how a particle collider functions, discussing its main parameters and addressing the challenges inherent in such a machine. By exploring the functioning of LHC, attendees will develop a deeper appreciation for the technological accomplishments and scientific advancements made possible by this instrument. Various risks during the operation of the LHC are also discussed.

Furthermore, this presentation highlights CERN's role in promoting international collaboration, and shaping the future through education and training initiatives.