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## Update on High-Field Research Activities at CERN

*Monday, 19 September 2022 16:00 (30 minutes)*

Alongside the numerous operational accelerators on the CERN site, several radio frequency (RF) and DC test facilities have been established to support the development of novel prototypes and investigate high-field phenomena. In these facilities, copper RF cavities are regularly operated at surface electric fields in excess of 200MV/m while DC electrodes of various materials have been tested to field levels in the tens of megavolts range. An update of these and other high-field research activities at CERN will be provided and the plans for the future detailed.

Several other activities which will be briefly featured include the application of Machine Learning analysis techniques to experimental data, the development of a novel framework for simulating the operation of high-field devices, and breakdown studies in an operational radio frequency quadrupole (RFQ).

### Topic

Experiments and Diagnostics

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**Session Classification:** Experiments & Diagnostics

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