



Contribution ID: 611

Type: **Presentation**

## Characterization of FCC conductors at TU Vienna

*Thursday 27 June 2019 14:15 (15 minutes)*

The Vienna University of Technology (TU Wien) is supporting the FCC wire development program by advanced characterization techniques of the superconducting properties of prototype wires and microstructural analysis. The aim of the work is to deepen the understanding of the relationship between the local superconducting properties, the underlying microstructure, and the resulting macroscopic behavior. The microstructural investigations have been done by means of scanning and transmission electron microscopy (SEM, TEM), the local superconducting properties have been assessed by scanning Hall probe microscopy (SHPM). Recent exemplary results on compositional gradients, grain size distribution and the influence of artificial pinning centers (APC) will be presented.

**Authors:** EISTERER, Michael (Vienna University of Technology (AT)); Dr BAUMGARTNER, Thomas (Atom-institut, TU Wien); Mr ORTINO, Mattia (TU Wien (Vienna)); BERNARDI, Johannes; PFEIFFER, Stephan (Vienna University of Technology); MOROS, Alice (Technische Universität Wien); STÖGER-POLLACH, Michael (TU Wien); SUMPTION, Mike (The Ohio State University); XU, Xingchen (Fermi National Accelerator Lab); PENG, Xuan (Hyper Tech Research Inc.); ALEKSEEV, Maxim (Bochvar Institute of Inorganic Materials); TSAPLEVA, Anastasia (Bochvar Institute of Inorganic Materials); LUKYANOV, Pavel (Bochvar Institute of Inorganic Materials); ABDYUKHANOV, ILDAR (VNIINM (Bochvar Institute)); PANTSIRNY, Victor (Bochvar Institute); BORDINI, Bernardo (CERN); HOPKINS, Simon (CERN); BALLARINO, Amalia (CERN)

**Presenter:** EISTERER, Michael (Vienna University of Technology (AT))

**Session Classification:** Magnets

**Track Classification:** Superconducting magnets & associated technologies