

The French National High Magnetic Field Laboratory (LNCMI): Current Trajectory and Strategic Vision

Rolf Lortz

Université Grenoble Alpes, INSA Toulouse, Université Toulouse Paul Sabatier, CNRS, LNCMI, Grenoble, France.

Abstract:

As of 1 July 2025, I have assumed the directorship of the French National High Magnetic Field Laboratory (LNCMI), a national research infrastructure as part of EMFL at the forefront of high magnetic field science and advanced instrumentation. In this presentation, I will first provide an overview of LNCMI's current status and key achievements, highlighting recent advancements in pulsed and static magnetic field technology, multidisciplinary research, and international collaboration. I will then outline the laboratory's strategic roadmap for the next five years, focusing on ambitious magnet development projects, innovative measurement instrumentation, and expanded research capabilities for quantum materials, condensed matter physics, energy technologies and others. Particular attention will be given to emerging opportunities, interdisciplinary partnerships, and the infrastructural challenges that lie ahead as we aim to push the boundaries of high-field science and serve our user community.