

SHORT BIO

Christoph Kirchlechner is an Austrian materials scientist who specializes in the multi-scale understanding of deformation, fatigue and fracture of structural and functional materials. His research uses synchrotron-based and electron microscopic *in situ* methods to gain fundamental mechanistic insights into material behavior and to develop tailor-made materials. Applied materials for the energy transition (topics: Hydrogen embrittlement, fusion, high-temperature materials, thin films) and the circular economy are the focus of his work.

After completing his doctorate at the University of Leoben (Austria) and the Austrian Academy of Sciences, he continued his career as a group leader at the Max Planck Institute for Iron Research in Düsseldorf (Germany) and as an assistant professor at the University of Leoben. Since 2020, he has been Professor of Nanostructured Functional Materials at the Karlsruhe Institute of Technology (KIT, Germany), he is Managing Director of the Institute of Applied Materials (IAM) and heads the IAM subinstitute "Mechanics of Materials and Interfaces" (IAM-MMI). Since 2025 he is scientific spokesperson of KIT's fusion program.

Christoph Kirchlechner has received several awards, including one of Austria's highest academic honors, the *Promotio Sub Auspiciis Praesidentis*, the Heinz Maier-Leibnitz Prize from the German Research Foundation and an ERC Consolidator Grant (ERC CoG) from the European Union.