

**Current positions**

Head of the Cryogenic Material Test Laboratory Karlsruhe CryoMaK at the Institute for Technical Physics ITEP (since 2006)
Deputy Head of the Magnet-Technology section of ITEP (since 2013)
Coordinator of the Research Topic Cryogenic Structural Material within the ITEP (since 2016)

Scientific degrees

PhD in Physics / Technical University Karlsruhe (2003)

Recent research topics

Materials at cryogenic temperature, test procedures and sensors for mechanical testing, thermal properties of structural materials and of superconductors, electromechanical properties of technical superconductors in magnetic fields

Awards, honors, memberships

Co-convener of the German National Committee DKE/DIN and IEC Technical Committee 90 "Superconductivity" (since 2006), Spokesmen "Magnet Technology" within the German DEMO Working Group (since 2010)

Publications/Patents (5 most important)

- **W. Fietz, M.J. Wolf, R. Heller, K.-P. Weiss**, Connector for superconducting conductors, and use of the connector; German Patent WO: 2017025191 (2017), U.S. Patent No. 10,218,090 (2019)
- **K.-P. Weiss, N. Bagrets, J. Sas, A. Jung, S.I. Schlachter**, et al, Mechanical and Thermal Properties of Central Former Material for High-Current Superconducting Cables, IEEE Transactions on Applied Superconductivity 26 (4), 7457353 (2016) [doi:10.1109/TASC.2016.2539101](https://doi.org/10.1109/TASC.2016.2539101)
- **K.-P. Weiss, N. Bagrets, C. Lange, W. Goldacker, J. Wohlgemuth**, Thermal and mechanical properties of selected 3D printed thermoplastics in the cryogenic temperature regime, IOP Conference Series: Materials Science and Engineering 102 (1), 012017 (2015) [doi:10.1088/1757-899X/102/1/012022](https://doi.org/10.1088/1757-899X/102/1/012022)
- **J. Sas, K.-P. Weiss, A. Jung**, The Mechanical and material properties of 316LN austenitic stainless steel for the fusion application in cryogenic temperatures, IOP Conference Series: Materials Science and Engineering 102 (1), 012003 (2015) [doi: 10.1088/1757-899X/102/1/012003](https://doi.org/10.1088/1757-899X/102/1/012003)
- **K.-P. Weiss**, A. Nyilas, Specific aspects on crack advance during J-test method for structural materials at cryogenic temperatures, Fatigue & Fracture of Engineering Materials & Structures 29, 83 (2006) [doi: 10.1111/j.1460-2695.2006.00963.x](https://doi.org/10.1111/j.1460-2695.2006.00963.x)