



Current position

Head of group Measurements and Experimental Methodology at Institute of Neutron Physics and Reactor Technology, Karlsruhe Institute of Technology.

Scientific degrees

Dr.-Ing. (PhD) in Mechanical Engineering, University of Karlsruhe (2009)

Recent research topics

Thermal-hydraulics; High heat flux applications; Hydrogen transport; Design of irradiation experiments (IFMIF-DONES)

Publications/Patents (5 most important)

- **F. Arbeiter, Y. Chen, B.-E. Ghidersa, Ch. Klein, H. Neuberger, et al.**, Options for a high heat flux enabled helium cooled first wall for DEMO, *Fusion Eng. Des.* 119, 22-28 (2017) [doi: 10.1016/j.fusengdes.2017.04.083](https://doi.org/10.1016/j.fusengdes.2017.04.083)
- **S. Ruck, F. Arbeiter**, Detached eddy simulation of turbulent flow and heat transfer in cooling channels roughened by variously shaped ribs on one wall, *Int. J. Heat Mass Tran.* 118:388-401 (2017) [doi:10.1016/j.ijheatmasstransfer.2017.10.094](https://doi.org/10.1016/j.ijheatmasstransfer.2017.10.094)
- **F. Arbeiter, A. Abou-Sena, J. Averhals, T. Böttcher, Y. Chen, et al.**, Design description and validation results for the IFMIF High Flux Test Module as outcome of the EVEDA phase, *Nuclear Materials and Energy* 9, 59-65 (2016) [doi:10.1016/j.nme.2016.04.013](https://doi.org/10.1016/j.nme.2016.04.013).
- **F. Arbeiter, Y. Chen, M. Ilic, F. Schwab, B. Sieglin, R. Wenninger**, Thermohydraulics of helium cooled First Wall channels and scoping investigations on performance improvement by application of ribs and mixing devices, *Fusion Eng. Des.*, 109-111 Part B, 1123-1129 (2016) [doi:10.1016/j.fusengdes.2016.01.008](https://doi.org/10.1016/j.fusengdes.2016.01.008)
- J. Knaster, A. Ibarra, J. Abal, **A. Abou-Sena, F. Arbeiter et al.**, The accomplishment of the Engineering Design Activities of IFMIF/EVEDA: The European–Japanese project towards a Li(d,xn) fusion relevant neutron source, *Nucl. Fusion*, 55, 086003 (2015) [doi:10.1088/0029-5515/55/8/08600](https://doi.org/10.1088/0029-5515/55/8/08600)