



Prof. Matthias Noe

ORCID:

**Current positions**

Director Institute for Technical Physics and Professor for Applications of High-Temperature Superconductors in Power Systems at KIT (since 2006)

**Previous positions (two selected)**

Researcher and Group Leader at Institute for Technical Physics at Research Centre Karlsruhe (former Organization of KIT) (1998-2006)

Postdoctoral researcher at Ecole Polytechnique Federale de Lausanne, CH (1997-1998)

**Scientific degrees**

PhD in electrical engineering, Leibniz University Hanover, Germany (1998)

MSc in Electrical Engineering, Leibniz University of Hanover, Germany (1991)

**Recent research topics**

Superconducting applications, power system simulation, energy storage integration

**Awards, honors, memberships**

2015-2020 Spokesperson of Helmholtz Program Energy Storage and cross-linked Infrastructures

2015-2018 Coordinator EERA joint program Energy Storage

**Publications/Patents (5 most important)**

- Y. Liu, F. Schreiner, M. Lao, **M. Noe**, M. Doppelbauer, Design of a superconducting DC demonstrator for wind generators, *IEEE Trans. on Energy Conversion* 33, 1955 (2018) [doi:10.1109/TEC.2018.2846721](https://doi.org/10.1109/TEC.2018.2846721)
- D. Kottonau, E. Shabagin, **M. Noe**, S. Grohmann, Opportunities for High-Voltage AC Superconducting Cables as Part of New Long-Distance Transmission Lines, *IEEE Trans. on Applied Superconductivity* 27, (2017) [doi:10.1109/TASC.2017.2652856](https://doi.org/10.1109/TASC.2017.2652856)
- S. Hellmann, M. Abplanalp, L. Hofstetter, **M. Noe**, Manufacturing of a 1-MVA-Class Superconducting Fault Current Limiting Transformer with Recovery-Under-Load Capabilities, *IEEE Trans. on Applied Superconductivity* 27, (2017) [doi:10.1109/TASC.2017.2652493](https://doi.org/10.1109/TASC.2017.2652493)
- Y. Li, **M. Noe**, M. Doppelbauer, Feasibility study of a superconducting DC direct-drive wind generator, *IEEE Trans. on Applied Superconductivity* 26, (2016) [doi:10.1109/TASC.2016.2536103](https://doi.org/10.1109/TASC.2016.2536103)
- W.T.B. de Sousa, A. Polasek, T.M.L. Assis, R. de Andrade, **M. Noe**, Simulations of resistive and air coil SFCLs in a power grid, *IEEE Trans. on Applied Superconductivity* 25, (2015), [doi:10.1109/TASC.2014.2387311](https://doi.org/10.1109/TASC.2014.2387311)