

Dr. Thomas Fiedler
Electromagnetic Simulations and RF Safety
Medical Physics in Radiology
DKFZ Heidelberg

Selected publications:

Thomas M. Fiedler, Mark E. Ladd, Stephan Orzada

Local and whole-body SAR in UHF body imaging: Implications for SAR matrix compression
Magnetic Resonance in Medicine 2024, DOI: 10.1002/mrm.30306

N. De Zanche, N. van den Berg, et al. (2022)

ISMRM Best Practices for Safety Testing of Experimental RF Hardware
International Society for Magnetic Resonance in Medicine, DOI: 10.7939/r3-7vpe-x737

Thomas M. Fiedler, Stephan Orzada, Martina Flöser, Stefan H. G. Rietsch, Simon Schmidt, Jonathan K. Stelter, Marco Wittrich, Harald H. Quick, Andreas K. Bitz, Mark E. Ladd (2021)

Performance and safety assessment of an integrated transmit array for body imaging at 7 T under consideration of specific absorption rate, tissue temperature, and thermal dose
NMR in Biomedicine, <https://doi.org/10.1002/nbm.4656>

Thomas M. Fiedler, Stephan Orzada, Martina Flöser, Stefan H. G. Rietsch, Harald H. Quick, Mark E. Ladd, and Andreas K. Bitz (2021)

Performance Analysis of Integrated RF Micro Stripline Transmit Arrays with High Channel Count for Body Imaging at 7 Tesla
NMR in Biomedicine, <https://doi.org/10.1002/nbm.4515>

T. M. Fiedler, M. E. Ladd, M. Clemens, A. K. Bitz (2020),

Safety of Subjects During Radiofrequency Exposure in Ultra-High-Field Magnetic Resonance Imaging
in *IEEE Letters on Electromagnetic Compatibility Practice and Applications*, vol. 2, no. 3, pp. 85-91, Sept. 2020,
DOI: 10.1109/LEMCPA.2020.3029747.

Stephan Orzada, Klaus Solbach, Marcel Gratz, Sascha Brunheim, Thomas M. Fiedler, Sören Johst, Andreas K. Bitz, Samaneh Shooshtary, Ashraf Abuelhaija, Maximilian N. Voelker, Stefan H. G. Rietsch, Oliver Kraff, Stefan Maderwald, Martina Flöser, Mark Oehmigen, Harald H. Quick, Mark E. Ladd (2019)

A 32-channel parallel transmit system add-on for 7T MRI
PLoS ONE 14(9):e0222452. <https://doi.org/10.1371/journal.pone.0222452>

T. M. Fiedler, M. E. Ladd, A. K. Bitz (2018)

SAR Simulations and Safety
Review Article, *NeuroImage: Special Issue "Neuroimaging with Ultra-High Field MRI: Present and Future"*,
Volume 168, March 2018, Pages 33-58, DOI: 10.1016/j.neuroimage.2017.03.035