# Wolfgang Kainz

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 67 papers | 2,324 citations | 17 h-index | 48 g-index |
| 67 ext. papers | 2,974 ext. citations | 3.1 avg, IF | 4.62 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 67 | A technique for the reduction of RF-induced heating of active implantable medical devices during MRI. *Magnetic Resonance in Medicine*, **2022**, 87, 349-364 | 4.4 | 0 |
| 66 | Magnetic resonance conditionality of abandoned leads from active implantable medical devices at 1.5 T. *Magnetic Resonance in Medicine*, **2022**, 87, 394-408 | 4.4 | 0 |
| 65 | Correction to MRSaiFE: An AI-Based Approach Toward the Real-Time Prediction of Specific Absorption Rate *IEEE Access*, **2022**, 10, 19925-19925 | 3.5 | |
| 64 | MRSaiFE: An AI-based Approach Towards the Real-Time Prediction of Specific Absorption Rate. *IEEE Access*, **2021**, 9, 140824-140834 | 3.5 | 1 |
| 63 | Assessment of Human Exposure to Electromagnetic Fields: Review and Future Directions. *IEEE Transactions on Electromagnetic Compatibility*, **2021**, 63, 1619-1630 | 2 | 17 |
| 62 | A Cascaded Heterogeneous Equivalent Network for Evaluating RF-Induced Hazards on Active Implantable Medical Devices. *IEEE Transactions on Electromagnetic Compatibility*, **2021**, 1-9 | 2 | |
| 61 | . *IEEE Transactions on Electromagnetic Compatibility*, **2021**, 63, 673-680 | 2 | |
| 60 | Radiofrequency-induced heating of broken and abandoned implant leads during magnetic resonance examinations. *Magnetic Resonance in Medicine*, **2021**, 86, 2156-2164 | 4.4 | 2 |
| 59 | Effects of patient orientations, landmark positions, and device positions on the MRI RF-induced heating for modular external fixation devices. *Magnetic Resonance in Medicine*, **2021**, 85, 1669-1680 | 4.4 | 0 |
| 58 | Modeling radio-frequency energy-induced heating due to the presence of transcranial electric stimulation setup at 3T. *Magnetic Resonance Materials in Physics, Biology, and Medicine*, **2020**, 33, 793-807 | 2.8 | 2 |
| 57 | . *IEEE Transactions on Instrumentation and Measurement*, **2020**, 69, 6381-6389 | 5.2 | 4 |
| 56 | . *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 509-515 | 4.1 | 3 |
| 55 | Modeling Electromagnetic Exposure in Humans Inside a Whole-Body Birdcage Coil Excited by a Two-Channel Parallel Transmitter Operated at 123 MHz. *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology*, **2020**, 4, 247-253 | 2.8 | 1 |
| 54 | Erratum to MRI Heating Reduction for External Fixation Devices Using Absorption Material [Aug 15 635-642]. *IEEE Transactions on Electromagnetic Compatibility*, **2020**, 62, 981-981 | 2 | |
| 53 | Erratum to A Transmission Line Model for the Evaluation of MRI RF-Induced Fields on Active Implantable Medical Devices *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 2468-2468 | 4.1 | |
| 52 | Erratum to On the Model Validation of Active Implantable Medical Device for MRI Safety Assessment *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 2469-2469 | 4.1 | |
| 51 | Comparison of Different Assessment Quantities to Evaluate Lead Electromagnetic Model for Radio Frequency Energy-Induced Heating. *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology*, **2020**, 4, 157-163 | 2.8 | 5 |

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| 50 | On the Model Validation of Active Implantable Medical Device for MRI Safety Assessment. *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 2234-2242 | 4.1 | 7 |
| 49 | Modeling radiofrequency responses of realistic multi-electrode leads containing helical and straight wires. *Magnetic Resonance Materials in Physics, Biology, and Medicine*, **2020**, 33, 421-437 | 2.8 | 5 |
| 48 | Wire-based sternal closure: MRI-related heating at 1.5 T/64 MHz and 3 T/128 MHz based on simulation and experimental phantom study. *Magnetic Resonance in Medicine*, **2020**, 83, 1055-1065 | 4.4 | 4 |
| 47 | Genetic algorithm search for the worst-case MRI RF exposure for a multiconfiguration implantable fixation system modeled using artificial neural networks. *Magnetic Resonance in Medicine*, **2020**, 84, 2754-2764 | 4.4 | 2 |
| 46 | . *IEEE Transactions on Electromagnetic Compatibility*, **2020**, 62, 2689-2695 | 2 | 1 |
| 45 | . *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 5423-5431 | 4.1 | 3 |
| 44 | Impact of RF Shimming on RF-Induced Heating Near Implantable Medical Electrodes in a 3T MRI Coil. *IEEE Transactions on Electromagnetic Compatibility*, **2020**, 62, 52-64 | 2 | 1 |
| 43 | . *IEEE Transactions on Electromagnetic Compatibility*, **2020**, 62, 43-51 | 2 | 4 |
| 42 | . *IEEE Transactions on Electromagnetic Compatibility*, **2020**, 62, 673-681 | 2 | 7 |
| 41 | Influence of a Metallic Shield on RF-Induced Heating of a Lead with Straight and Helical Wires **2019**, | | 2 |
| 40 | Computational and experimental investigation of RF-induced heating for multiple orthopedic implants. *Magnetic Resonance in Medicine*, **2019**, 82, 1848-1858 | 4.4 | 13 |
| 39 | On the development of equivalent medium for active implantable device radiofrequency safety assessment. *Magnetic Resonance in Medicine*, **2019**, 82, 1164-1176 | 4.4 | 8 |
| 38 | . *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology*, **2019**, 3, 247-253 | 2.8 | 5 |
| 37 | Investigations on Tissue-Simulating Medium for MRI RF Safety Assessment for Patients With Active Implantable Medical Devices. *IEEE Transactions on Electromagnetic Compatibility*, **2019**, 61, 1091-1097 | 2 | 5 |
| 36 | . *IEEE Transactions on Electromagnetic Compatibility*, **2019**, 61, 1423-1431 | 2 | 10 |
| 35 | . *IEEE Transactions on Electromagnetic Compatibility*, **2019**, 61, 1726-1732 | 2 | 4 |
| 34 | Anatomical Model Uncertainty for RF Safety Evaluation of Metallic Implants Under MRI Exposure. *Bioelectromagnetics*, **2019**, 40, 458-471 | 1.6 | 4 |
| 33 | . *IEEE Transactions on Electromagnetic Compatibility*, **2019**, 61, 1432-1437 | 2 | 5 |

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|---|---|---|---|
| 32 | Advances in Computational Human Phantoms and Their Applications in Biomedical Engineering - A Topical Review. *IEEE Transactions on Radiation and Plasma Medical Sciences*, **2019**, 3, 1-23 | 4.2 | 31 |
| 31 | Evaluations of the MRI RF-Induced Heating for Helical Stents Under a 1.5T MRI System. *IEEE Transactions on Electromagnetic Compatibility*, **2019**, 61, 57-64 | 2 | 10 |
| 30 | . *IEEE Transactions on Electromagnetic Compatibility*, **2018**, 60, 598-604 | 2 | 17 |
| 29 | A Transmission Line Model for the Evaluation of MRI RF-Induced Fields on Active Implantable Medical Devices. *IEEE Transactions on Microwave Theory and Techniques*, **2018**, 66, 4271-4281 | 4.1 | 22 |
| 28 | Evaluation of MRI RF electromagnetic field induced heating near leads of cochlear implants. *Physics in Medicine and Biology*, **2018**, 63, 135020 | 3.8 | 12 |
| 27 | Functionalized Anatomical Models for Computational Life Sciences. *Frontiers in Physiology*, **2018**, 9, 1594 | 4.6 | 13 |
| 26 | Lead Electromagnetic Model to Evaluate RF-Induced Heating of a Coax Lead: A Numerical Case Study at 128 MHz. *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology*, **2018**, 2, 286-293 | 2.8 | 13 |
| 25 | Novel mechanistic model and computational approximation for electromagnetic safety evaluations of electrically short implants. *Physics in Medicine and Biology*, **2018**, 63, 225015 | 3.8 | 4 |
| 24 | Pregnant women models analyzed for RF exposure and temperature increase in 3T RF shimmed birdcages. *Magnetic Resonance in Medicine*, **2017**, 77, 2048-2056 | 4.4 | 34 |
| 23 | The Role of Computational Modeling and Simulation in the Total Product Life Cycle of Peripheral Vascular Devices. *Journal of Medical Devices, Transactions of the ASME*, **2017**, 11, | 1.3 | 24 |
| 22 | . *IEEE Transactions on Electromagnetic Compatibility*, **2017**, 59, 805-812 | 2 | 8 |
| 21 | Sensitivity of the transfer function of a helix lead on the dielectric properties of the surrounding media: A case study **2017**, | | 7 |
| 20 | Impacts of RF shimming on MRI induced heating of implantable medical lead in 3T birdcage coil **2017**, | | 4 |
| 19 | Virtual population-based assessment of the impact of 3 Tesla radiofrequency shimming and thermoregulation on safety and B1 + uniformity. *Magnetic Resonance in Medicine*, **2016**, 76, 986-97 | 4.4 | 32 |
| 18 | Functionalized anatomical models for EM-neuron Interaction modeling. *Physics in Medicine and Biology*, **2016**, 61, 4390-401 | 3.8 | 17 |
| 17 | Numerical study of SAR for multi-component orthopaedic hip replacement system during MRI **2016** , | | 10 |
| 16 | . *IEEE Transactions on Electromagnetic Compatibility*, **2015**, 57, 635-642 | 2 | 16 |
| 15 | MIDA: A Multimodal Imaging-Based Detailed Anatomical Model of the Human Head and Neck. *PLoS ONE*, **2015**, 10, e0124126 | 3.7 | 127 |

# List of Publications

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|---|---|---|---|
| 14 | A Technique to Evaluate MRI-Induced Electric Fields at the Ends of Practical Implanted Lead. *IEEE Transactions on Microwave Theory and Techniques*, **2015**, 63, 305-313 | 4.1 | 71 |
| 13 | Whole-body and local RF absorption in human models as a function of anatomy and position within 1.5T MR body coil. *Magnetic Resonance in Medicine*, **2014**, 71, 839-45 | 4.4 | 43 |
| 12 | Thermal tissue damage model analyzed for different whole-body SAR and scan durations for standard MR body coils. *Magnetic Resonance in Medicine*, **2014**, 71, 421-31 | 4.4 | 61 |
| 11 | Effect of insulating layer material on RF-induced heating for external fixation system in 1.5 T MRI system. *Electromagnetic Biology and Medicine*, **2014**, 33, 223-7 | 2.2 | 7 |
| 10 | Development of a new generation of high-resolution anatomical models for medical device evaluation: the Virtual Population 3.0. *Physics in Medicine and Biology*, **2014**, 59, 5287-303 | 3.8 | 221 |
| 9 | Computational and experimental studies of an orthopedic implant: MRI-related heating at 1.5-T/64-MHz and 3-T/128-MHz. *Journal of Magnetic Resonance Imaging*, **2013**, 37, 491-7 | 5.6 | 43 |
| 8 | Efficient evaluation of MRI-induced electric fields in the vicinity of implantable lead **2013**, | | 4 |
| 7 | Evaluation of the RF heating of a generic deep brain stimulator exposed in 1.5 T magnetic resonance scanners. *Bioelectromagnetics*, **2013**, 34, 104-13 | 1.6 | 50 |
| 6 | Computational study of external fixation devices surface heating in MRI RF environment **2012**, | | 6 |
| 5 | Patient-specific simulations and measurements of the magneto-hemodynamic effect in human primary vessels. *Physiological Measurement*, **2012**, 33, 117-30 | 2.9 | 18 |
| 4 | The Virtual Family--development of surface-based anatomical models of two adults and two children for dosimetric simulations. *Physics in Medicine and Biology*, **2010**, 55, N23-38 | 3.8 | 968 |
| 3 | Complexity of MRI induced heating on metallic leads: experimental measurements of 374 configurations. *BioMedical Engineering OnLine*, **2008**, 7, 11 | 4.1 | 110 |
| 2 | Comparisons of Computed Mobile Phone Induced SAR in the SAM Phantom to That in Anatomically Correct Models of the Human Head. *IEEE Transactions on Electromagnetic Compatibility*, **2006**, 48, 397-407 | 2 | 115 |
| 1 | Dosimetric comparison of the specific anthropomorphic mannequin (SAM) to 14 anatomical head models using a novel definition for the mobile phone positioning. *Physics in Medicine and Biology*, **2005**, 50, 3423-45 | 3.8 | 81 |