Qiuliang Wang

- 1. Education
- B. S.: Physics College, Hubei University, July 1986
- M.S.: Institute of Plasma Physics, Chinese Academy of Sciences, September 1991
- Ph.D.: Institute of Electrical Engineering, Chinese Academy of Sciences, April 1994
- 2. Professional Experience
- 1994-1995: Post Doctor, Institute of Superconducting Science, Faculty of Engineering, Kyushu University, Japan
- 1995-2001: Associate Professor, Huazhong University of Science & Technology, China
- 1996-1999: STEPI Special Research Fellow, Applied Superconducting Laboratory, Korea Electric Research Institute, Korea
- 1999-2001: Senior Research Fellow, Energy Laboratory, Samsung Advanced Institute, Korea
- 2001-2002: Senior Engineer, NMR Division, Oxford Instruments, United Kingdom
- 2002-Present: Head and Professor, Superconducting Magnet Division, Institute of Electrical Engineering, Chinese Academy of Sciences, China
- 2003-2004: Visiting Professor, Accelerator Division, German Heavy Ion Accelerator Center, Germany
- 2006-Present: Visiting Professor (AMS Cooperation), Nuclear Physics Laboratory, Massachusetts Institute of Technology, United State
- 2008-2010: Visiting Professor, Institute of Superconducting and Electronic Materials, University of Wollongong, and Brain Scientific Research Center, The University of Queensland, Australia

PAPER LIST

Peer Review of Journal Paper

- Shunzhong Chen, Wanshuo Sun, Yaohui Wang, Yinming Dai, Jinshui Sun, Junsheng Cheng, Zili Zhang, Hui Liu, and Qiuliang Wang"Quench Protection Study of a 14 T Conduction-Cooled Magnet Built With NbSn and NbTi Superconducting Coils for PPMS", IEEE Transactions on Applied Superconductivity, JANUARY 2023, Volume: 33, Issue: 1, pp 1-7
- Shunzhong Chen, Lei Wang, Zili Zhang, Yaohui Wang, Hui Wang, Junsheng Cheng, Yinming Dai and Qiuliang Wang"Systematic analysis of the quench process performance and simulation of the 9.4 T-800 mm whole-body MRI magnet"Supercond. Sci. Technol. 36 (2023) 045007 (12pp) https://doi.org/10.1088/1361-6668/acb7a4
- 3. hixian Liu, Lei Wang*, Yong Chen, Luzhong Wang, Benzhe Zhou, Xinning Hu, Junsheng Cheng and Qiuliang Wang * R&D of on-board metal-insulation REBCO superconducting magnet for electrodynamic suspension syste "Supercond. Sci. Technol. 36 (2023) 064002 (15pp)
- 4. Zerong Zhang, Zhan Gao, Yanan Wang, Jianli Meng, Junsheng Cheng, Qiuliang Wang"The role of copper in the formation of the Nb3Sn superconducting phase",Intermetallics,Vol 155, 2023, 107848
- 5. Yang LiuQiuliang WangFeng Liu,"A hybrid FDTD/MoM algorithm with a conformal Huygens' equivalent surface for MRI RF coil design and analysis", Magnetic Resonance Imaging Vol 23 March 2023...
- Hongli Suo, Lanjin Wang, Xinyu Wu, Yaotang Ji, Xufeng Wang, Lin Ma, Min Liu, Lei Wang, Qiuliang Wang, Zili Zhang,"Feasible evolution process of tensile property dominant effect factor in annealed high purity nickel by a combination of in situ tensile technique and EBSD", Materials Today Communications, 35(2023)105718.

- 7. M.Aguilar,...*S.C.C.Ting*,...*Q.L.Wang*,....." Properties of Daily Helium Fluxes" PHYSICAL REVIEW LETTERS, Vol.128, No.23, JUN 10 2022, DOI10.1103, Art.231102
- 8. Xin Liu, Hongyi Qu, Lingwei Meng, Cong Wang, Qiuliang Wang,"A Physiological Control Method Based on SMC and GAPSO for Artificial Heart Pumps to Maintain Pulsatility and Avoid Regurgitation and Suction", Journal of Medical and Biological Engineering, Published: 23 December 2022
- 9. Zili Zhang, Xing Huang, Chunyan Cui, Hao Wang, Feifei Niu, Yuan Zhang, Xiangdong Kong, Li Han, Lei Wang, Xinning Hu and Qiuliang Wang"A novel Nb superconducting joint with ultralow resistance fabricated by electron beam welding method for superconducting gravimeter"2022 Supercond. Sci. Technol. 35 015008
- 10. Wanli Zhao, HongLi Suo,*, Shuo Wang, Lin Ma, Lei Wang, Qiuliang Wang, Zili Zhang,**"Mg gas infiltration for the fabrication of MgB2 pellets using nanosized and microsized B powders",Journal of the European Ceramic Society 42 (2022) 7036-7048
- 11. Hu, Y; Wang, MK; Hu, LP; Hu, YL; Guo, J; Xie, ZJ; Wei, SR; Wang, YH; Zi, Y; Zhang, H; Wang, Q L, Huang W Ha"Recent advances in two-dimensional graphdiyne for nanophotonic applications", ENGINEERING, CHEMICAL, Vol. 450, Part 4, 15 December 2022, 138228
- 12. Kangshuai Wang, Qiuliang Wang, Jianhua Liu, Lang Qin, Benzhe Zhou, Lei Wang, Zili Zhang and Yinming Dai,"A helical grid equivalent circuit model for an intra-layer no-insulation coil", Supercond. Sci. Technol. 35, 2022,085005
- 13. Wenhao Lin, Ying Liu, Bangfei Zhou, Hao Cai, Zhe Shen, Weili Ren, Zuosheng Lei, Chunmei Liu, Tianxiang Zheng, Yunbo Zhong, Bo Lu, Lei Zhang, Qiuliang Wang"Synthesis of single metallic crystal in microgravity simulated by static magnetic field"Scripta Materialia 221 (2022) 114969
- 14. Benzhe Zhou, Lei Wang, Kangshuai Wang, Lang Qin, Yaohui Wang, Zili Zhang, Jianhua Liu,*2 and Qiuliang Wang,"Experimental and simulation studies of SCIF considering non-uniform critical current" Supercond. Sci. Technol. 35 (2022) 075002 (11pp) https://doi.org/10.1088/1361-6668/ac6bc9
- 15. Yaotang Ji, Hongli Suo, Jing Liu, Lin Ma, Min Liu, Kausar Shaheen, Yi Wang, ZiLi Zhang, Qiuliang Wang "Effect of stress-relief annealing on rolled texture of nickel-based alloys", Journal of Alloys and Compounds, Volume 903, 15 May 2022, 163970
- 16. Yujia Zhai;Chang Niu;Xiaofei Zhang;Shoudao Huang;Boyang Shen;Yaohui Wang;Jianhua Liu;Qiuliang Wang"Modelling and Analysis on AC Loss of HTS Tapes With Magnetic Substrate Under Harmonic Current in Power Systems"IEEE Transactions on Applied Superconductivity,Year: 2022 | Volume: 32, Issue: 6 | Journal Article | Publisher: IEEE
- 17. Hongyi Qu;Hui Wang;Qi Chen;Cong Wang;Xin Liu;Qiuliang Wang,"An Experimental Study on the Passive Shimming in the 0.5 T Superconducting MRI Magnet"IEEE Transactions on Applied Superconductivity,Year: 2022 | Volume: 32, Issue: 7 | Journal Article | Publisher: IEEE
- 18. Jigang Zhao; Yaohui Wang; Xinning Hu; Qiuliang Wang, "Design of a Curved Canted-Cosine-Theta Superconducting Magnet for a Laser Proton Radiotherapy System", IEEE Transactions on Applied Superconductivity, Year: 2022 | Volume: 32, Issue: 6 | Journal Article | Publisher: IEEE
- 19. Xing Huang;Xinning Hu;Zili Zhang;Chunyan Cui;Hao Wang;Feifei Niu;Yuan Zhang;Luzhong Wang;Qiuliang Wang,"Analytical Calculation and Optimization of Superconducting Gravimeter Temperature Effect",IEEE Transactions on Applied Superconductivity,Year: 2022 | Volume: 32, Issue: 5 | Journal Article | Publisher: IEEE
- 20. Yichen Wang;Junsheng Cheng;Qiuliang Wang;Ling Xiong;Yuantao Cong;Jian Sun,"Influence of Shell Structure on Exit Velocity During Asynchronous Electromagnetic Propulsion",IEEE Transactions on Plasma Science,Year: 2022 | Volume: 50, Issue: 5 | Journal Article | Publisher: IEEE
- 21. Hongbo Sun; Jianhua Liu; Qiuliang Wang, "Design and Evaluation of Magnetic Navigation Flexible Endoscope for Colorectal Treatment", IEEE Transactions on Applied Superconductivity,
- 22. Year: 2022 | Volume: 32, Issue: 6 | Journal Article | Publisher: IEEE
- 23. Jian Sun; Junsheng Cheng; Qiuliang Wang; Ling Xiong; Yuantao Cong; Yichen Wang, "Numerical

- Simulation of Melt-Wave Erosion in 2-D Solid Armature", IEEE Transactions on Plasma Science,
- 24. Year: 2022 | Volume: 50, Issue: 4 | Journal Article | Publisher: IEEE
- 25. Yujia Zhai;Chang Niu;Xinyi Liu;Feng Wang;Jianhua Liu;Qiuliang Wang,"Conduction-Coolled HTS Magnets Closed-Loop System Excited by a Rotating Magnets Flux Pump",IEEE Transactions on Applied Superconductivity,Year: 2022 | Volume: 32, Issue: 6 | Journal Article | Publisher: IEEE
- 26. Xing Huang;Xinning Hu;Chunyan Cui;Hao Wang;Feifei Niu;Yuan Zhang;Luzhong Wang;Qiuliang Wang;Xinghua Hao;Ming Liu;Xiaodong Chen;Yan Yang,"Design and Construction of a Superconducting Gravimeter Prototype",IEEE Transactions on Instrumentation and Measurement,Year: 2022 | Volume: 71 | Journal Article | Publisher: IEEE
- 27. Hongbo Sun; Jianhua Liu; Lei Wang; Chaoqun Niu; Qiuliang Wang, "A Novel Control Method of Magnetic Navigation Capsule Endoscope for Gastrointestinal Examination", IEEE Transactions on Magnetics, Year: 2022 | Volume: 58, Issue: 1 | Journal Article | Publisher: IEEE
- 28. Lankai Li;Junsheng Cheng;Wang Qiuliang,"Research on Solenoidal Permanent Magnet for Guiding and Focusing Annular Electron Beams",IEEE Transactions on Plasma Science, Year: 2021,Volume: 49, Issue: 7,pp 2093- 2098
- 29. M.Aguilar,...S.C.C.Ting,...Q.L.Wang,....."Properties of a New Group of Cosmic Nuclei: Results from the Alpha Magnetic Spectrometer on Sodium, Aluminum, and Nitrogen"Jul 7 2021, PHYSICAL REVIEW LETTERS 127 (2)
- 30. M.Aguilar,...S.C.C.Ting,...Q.L.Wang,....." Periodicities in the Daily Proton Fluxes from 2011 to 2019 Measured by the Alpha Magnetic Spectrometer on the International Space Station from 1 to 100 GV", PHYSICAL REVIEW LETTERS, Vol.127, No.27, Dec. 2021 31, Art. 271102
- 31. M.Aguilar,...*S.C.C.Ting*,...*Q.L.Wang*,....."Properties of Heavy Secondary Fluorine Cosmic Rays: Results from the Alpha Magnetic Spectrometer"Feb 25 2021 | PHYSICAL REVIEW LETTERS 126 (8)
- 32. M.Aguilar,...S.C.C.Ting,...Q.L.Wang,....."The Alpha Magnetic Spectrometer (AMS) on the international space station: Part II Results from the first seven years", Feb 7 2021 | PHYSICS REPORTS-REVIEW SECTION OF PHYSICS LETTERS 894, pp.1-116
- 33. M.Aguilar,...*S.C.C.Ting*,...*Q.L.Wang*,....."Properties of Iron Primary Cosmic Rays: Results from the Alpha Magnetic Spectrometer", Jan 28 2021 | PHYSICAL REVIEW LETTERS 126 (4)
- 34. Bang fei, Zhou Wen, hao Lin, Ying Liu ,Tianxiang Zheng, Yunbo Zhong, Hui Wang, Qiuliang Wang, "Effects of high static magnetic field on the microstructure of Zn-Bi monotectic alloys during directional solidification process", Journal of Alloys and Compounds,21 August 2021, 161670
- 35. Lang Qin;Jianhua Liu;Lei Wang;Kangshuai Wang;Benzhe Zhou;Yaohui Wang;Hongbo Sun;Chaoqun Niu;Qiuliang Wang,"A high efficiency protecting scheme for HTS inserts in case of background magnet quenches"IEEE Transactions on Magnetics,Year: 2021
- 36. Yan Xu, Hongli Suo, Thomas Qureishy, Jean-Claude Grivel, Pavlo Mikheenko, Min Liu, Lin Ma, Xiaolong Zhang, Yuqi Zhou, Jianhua Liu, Lei Wang, Zili Zhang, Qiuliang Wang, "Systematic research on the effect of both positive and negative mismatch dopants in double-doped YBCO superconducting films", Journal of the European Ceramic Society, Volume 41, Issue 1, January 2021, Pages 480-487
- 37. Liyi Kang , Ling Xia*, Qiuliang Wang* , Yaohui Wang, Fangfang Tang, Feng Liu"A Volumetric Finite-difference Method for the Design of Three-Dimensional, Arbitrary-structured MRI Gradient Coil ," 03-15-2021, Review of Scientific Instruments (Vol.92, Issue 3)
- 38. M.Aguilar,...*S.C.C.Ting*,...*Q.L.Wang*,....."Properties of Iron Primary Cosmic Rays: Results from the Alpha Magnetic Spectrometer"Phys. Rev. Lett. 126, 041104 Published 28 January 2021
- 39. Yan Xu, Hongli Suo, Thomas Qureishy, Jean-Claude Grivel, Pavlo Mikheenko, Min Liu, Lin Ma, Xiaolong Zhang, Yuqi Zhou, Jianhua Liu, Lei Wang, Zili Zhang, Qiuliang Wang, "Systematic research on

the effect of both positive and negative mismatch dopants in double-doped YBCO superconducting films", Journal of the European Ceramic Society, Volume 41, Issue 1, January 2021, Pages 480-487