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EDUCATION:

2014-2020
PhD in Engineering
Southwest Jiaotong University, China

WORK EXPERIENCE:

Since 2021
Postdoctoral Researcher at Karlsruhe Institute of Technology
Assistant professor at Southwest Jiaotong University

PUBLICATIONS:

[1] **Pengbo Zhou**, Guangtong Ma, Yuke Deng, Xingchao Nie, Yao Zhai, Kang Liu, Han Zhang, and Yongjian Li，"A Contactless Self-Regulating HTS Flux Pump," *IEEE Transactions on Applied Superconductivity*, 2020, 30(4): 3603006.

[2] **Pengbo Zhou,** Guangtong Ma, and Loïc Quéval, "Transition Frequency of Transport AC Losses in High Temperature Superconducting Coated Conductors," *Journal of Applied Physics,* 2019, 126(6): 063901.

[3] **Pengbo Zhou**, Chao Wang, Hangyu Qian, Loïc Quéval, Zhen Luo, Yuke Deng, Jing Li, Yongjian Li, and Guangtong Ma, "Frequency-dependent Transport AC Losses of Coated Superconductors up to Tens of

Kilohertz," *IEEE Transactions on Applied Superconductivity*, 2019，29(5): 8201705.
[4] **Pengbo Zhou,** Loïc Quéval, and Guangtong Ma, "Magnetic coupling enhancement using a flux transformer," *Journal of Physics D: Applied Physics*, 2019, 52(7): 075001.
[5] **Pengbo Zhou,** Guangtong Ma, Chen Yang, Loïc Quéval, Guimei Ming, Kun Liu, Hangyu Qian, and Kang Liu, "Magnetic Field Transfer of Superconductor-Ferromagnet Heterostructures up to 10 kHz," *IEEE Transactions on Applied Superconductivity*, 2017, 27(4): 0601105.
[6] Yao Zhai, Guangtong Ma, Yuke Deng, Chenzhen Sun, Yuxiao Li, **Pengbo Zhou***. Modeling and Characteristics Investigation of Self-Regulating HTS Flux Pump[J]. Cryogenics, 2022: 103486.
[7] Yuke Deng, Chao Wang, Jing Li, **Pengbo Zhou***, Kang Liu, Tianyong Gong, Hengbin Cui, Xue Deng and Guangtong Ma, "Observation of the Current-decay and Force-variation of a Flux-Pumped HTS Magnet Subjected to Travelling Magnetic Fields," Journal of Superconductivity and Novel Magnetism, 2020, 33:2971-2982.
[8] Jin Li, Chenzhen Sun, **Pengbo Zhou**, et al. Influence of Ferromagnetic Slice on the Charging Performance of a Through-Wall HTS Flux Pump Employing a Magnetic Coupler[J]. Superconductor Science and Technology, 2022.
[9] Yao Zhai, Guangtong Ma, Tianyong Gong, Gang Ren, **Pengbo Zhou**. 3-D Modeling of Current Decay in a Closed HTS Racetrack Coil Under Traveling Magnetic Fields[J]. IEEE Transactions on Applied Superconductivity, 2022, 32(6): 4603406.
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[11] Guangtong Ma, Tianyong Gong, Rruichen Wang, Songlin Li, Xingchao Nie, **Pengbo Zhou**, Jing Li. Design, fabrication and testing of a coated conductor magnet for electrodynamic suspension[J]. Superconductor Science and Technology, 2021, 35(2): 025013.
[12] Ruichen Wang, Guangtong Ma, **Pengbo Zhou,** et al. Thermo-electromagnetic modeling of coated superconductor coils with metal insulation[J]. Superconductor Science and Technology, 2021, 34(11): 115017.
[13] Yao Zhai, **Pengbo Zhou**, Jing Li, et al. Performance Investigation of Contactless Self-Regulating HTS Flux Pump[J]. IEEE Transactions on Applied Superconductivity, 2021, 31(5): 1-5.
[14] Chao Wang, **Pengbo Zhou,** Hangyu Qian, Xingchao Nie, Jing Li, Tianyong Gong, and Guangtong Ma, "Experimental Studies of Current Decay in a Flux Pumped HTS Magnet Subject to Travelling Magnetic Fields，" *IEEE Transactions on Applied Superconductivity*, 2019 29(5): 4603405.
[15] Hangyu Qian, **Pengbo Zhou,** Chao Wang, Yuke Deng, and Guangtong Ma, "Wireless Power Supply for HTS Magnets: Circuit Topology Design and Cryogenic Testing," *IEEE Transactions on Applied Superconductivity*, 2019 29(5):4602205.
[16] Hangyu Qian, **Pengbo Zhou,** and Guangtong Ma, "Magnetic Coupling Enhancement for Contactless Power Transfer with Superconductors," *IEEE Magnetics Letters*, 2017 8(1):1309104.
[17] Xiang Li, Jing Li, **Pengbo Zhou,** Kun Liu，Le Han, Xuliang Song, and Guangtong Ma,"Decay of Trapped Magnetic Field in Stacks of YBCO Coated Conductors Subjected to Traveling Magnetic Waves,"*IEEE Transactions on Applied Superconductivity*, 2019. 29(7): 8701669.
[18] Yuke Deng, Jing Li, **Pengbo Zhou,** Chenzhen Sun, Yao Zhai, Hangyu Qian, Wenjiao Yang, Rongjin Sheng, and Guangtong Ma, "Performance Optimization and Verification of the Transformer-rectifier Flux Pump for HTS Magnet Charging," *IEEE Transactions on Applied Superconductivity*, 2020, 30(4): 2990203.
[19] Kang Liu, Zhengwei Zhao, Tianyong Gong, Yao Cai, **Pengbo Zhou,** and Guangtong Ma,"The reduced fluctuation in the electromagnetic forces of a coreless HTS linear synchronous motor,"*Phys C Supercond Appl*, 2019，557，pp. 49-54.
[20] Kang Liu, Zhengwei Zhao, Zhenyao Sun, **Pengbo Zhou**, and Guangtong Ma, "Experimental Characterization of a No-insolation HTS Racetrack Coil Subjected to Travelling Magnetic Fields", *IEEE Transactions on Applied Superconductivity*, 2020, 30(4): 2982395.
[21] Jing Li, Xiang Li, Le Han, **Pengbo Zhou**, Xuliang Song, and Guangtong Ma, "The study on the force characteristics of Stacked Tapes Subjected to Traveling-wave Magnetic Field," 2019 22nd International Conference on Electrical Machines and Systems, 2019. 8922076.

AWARDS/ HONORS:

Nov 2018 **The Best Student Paper in Materials-**Third Place presented at the 2018 Applied Superconductivity Conference, Seattle, USA.

CONFERENCE EXPERIENCES:

1. 2015. International Conference on Magnet Technology, Seoul, Korea, poster presentation;
2. 2016. Applied Superconductivity Conference, Denver, USA, poster presentation;
3. 2018. Applied Superconductivity Conference, Seattle, USA, poster presentation and student contest;
4. 2019. International Conference on Magnet Technology, Vancouver, Canada, poster presentation.