



周利娜

副教授

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教育背景

大连理工大学 物理学院等离子体物理专业 理学博士 (2014-2019)

延边大学 理学院物理系 理学学士 (2010-2014)

工作经历

大连海事大学 理学院 副教授 (2023-今)

大连海事大学 理学院 讲师 (2019-2023)

研究领域

磁约束核聚变等离子体物理理论与数值模拟

人工智能技术在磁约束核聚变中的应用

代表性成果

论文类:

(1) Hanyu ZHANG, Lina ZHOU*, Yueqiang LIU*, Guangzhou HAO, Shuo WANG, Xu YANG, Yutian MIAO, Ping DUAN and Long CHEN, Deep learning approaches to recover the plasma current density profile from the safety factor based on Grad-Shafranov solutions across multiple tokamaks, Plasma Science and Technology, 2024, 26: 055101.

(2) Yong Wang, Lina Zhou, Jielin Shi, Yu Li, Cong Li, Chunlei Feng, Hongbin Ding, Observation of the low electron density and electron

temperature in an unmagnetized cascaded arc helium plasma by laser Thomson scattering approach, *Plasma Physics and Controlled Fusion*, 2024, 66: 045014.

- (3) Lina Zhou, Yueqiang Liu, Hanqing Hu, Mattia Siccino, Maviglia Francesco, Hartmut Zohm, Leonardo Pigatto, Yong Wang, Li Li, Guangzhou Hao, Xu Yang, Hanyu Zhang, Ping Duan and Long Chen, Drift kinetic effects on plasma response to resonant magnetic perturbation for EU DEMO design, *Plasma Physics and Controlled Fusion*, 2023, 65: 035008.
- (4) Zhou Li-Na, Hu Han-Qing, Liu Yue-Qiang, Duan Ping, Chen Long and Zhang Han-Yu, Modelling study of fluid and kinetic responses of plasmas to resonant magnetic perturbation, *Acta Physica Sinica*, 2023, 72: 075202.
- (5) Lina Zhou, Yueqiang Liu, Mattia Siccino, Emiliano Fable, Tingting Wu, Taina Kurki-Suonio, Jari Varje and Deyong Liu , A comparative study of internal kink stability in EU DEMO designs with negative and positive triangularity, *Plasma Physics and Controlled Fusion*, 2021, 63(06): 065007.
- (6) Lina Zhou, Yueqiang Liu, Mattia Siccino, Emiliano Fable, Tingting Wu, Ping Duan and Long Chen, Drift kinetic effects and local current drive induced modification of magnetic shear on sawtooth activity in EU DEMO, *Nuclear Fusion*, 2020, 60: 126011.
- (7) Lina Zhou, Yueqiang Liu, Ronald Wenninger, Yue Liu, Shuo Wang, Xu Yang, Toroidal plasma response based ELM control coil design for EU DEMO, *Nuclear Fusion*, 2018, 58:076025.
- (8) Lina Zhou, Yueqiang Liu, Yue Liu, Xu Yang, Plasma response based RMP coil geometry optimization for an ITER plasma, *Plasma Physics and Controlled Fusion*, 2016, 58:115003.

代表性项目

- (1) 国家自然科学基金青年科学基金项目 1 项，2023-2025，主持。
- (2) 大连市科技人才创新支持计划青年科技之星项目 1 项，2023-2024，主持。

