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华北电力大学核科学与工程学院副教授、博士生导师；西安交通大学核科学与技术专业博士毕业；获得国家留学基金委资助在加州大学伯克利分校核工程热工实验室进行为期两年的理论及实验研究，主要参与第四代反应堆大型整体效应实验台架设计、调试、运行以及承担第四代反应堆非能动系统先进安全分析程序的研发；参与教育部首批中国高校人工智能人才国际培养计划。

**研究方向：**

①高效敏感性及不确定性分析基础理论及应用研究

②人工智能与核能融合前沿技术研究

③新工质及新技术在先进核能系统应用的关键基础问题研究

**代表性科研项目：**

① “XX不确定性研究”

② “安全壳过滤排放新技术研究”

③ “RELAP5与FRAPTRAN/GOTHIC实时耦合技术研究”

**代表性学术论文：**

[1]Sun Q, Guo Z, Chen W, et al. Global sensitivity analysis of the main steam line break accident by using sampling methods and surrogate models[J]. Annals of Nuclear Energy, 2021, 150: 107787.

[2]Guo Z, Zhao Y, Zhu Y, et al. Optimal design of supercritical CO2 power cycle for next generation nuclear power conversion systems[J]. Progress in Nuclear Energy, 2018, 108: 111-121.

[3]Zhao Y, Guo Z, Niu F, et al. Global sensitivity analysis of passive safety systems of FHR by using meta-modeling and sampling methods[J]. Progress in Nuclear Energy, 2019, 115: 30-41.

[4]Guo Z, Zweibaum N, Shao M, et al. Development of the FHR advanced natural circulation analysis code and application to FHR safety analysis[J]. Progress in Nuclear Energy, 2016, 91: 56-67.

[5]Guo Z, Zhou J, Zhang D, et al. Coupled neutronics/thermal-hydraulics for analysis of molten salt reactor[J]. Nuclear Engineering and Design, 2013, 258: 144-156.

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[9]Zweibaum N, Guo Z, Kendrick JC, et al. Design of the Compact Integral Effects Test Facility and Validation of Best-Estimate Models for Fluoride Salt–Cooled High-Temperature Reactors[J]. 2016.

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