

核动力仿真技术及其发展

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摘要 文章评述核动力仿真技术的发展状况及其特点,重点分析了核动力仿真机的发展,探索了核动力仿真技术发展的新动向。分析指出:模块化、集成化、数字化、可视化、虚拟化、网络化和智能化仿真是未来核动力仿真技术发展的重要趋势;核动力仿真逐渐突破传统的模式,向以三维数字化仿真设计为基础的核动力系统设计、制造方面拓展;以全寿期管理为目标的数字化核电厂设计是未来核动力仿真技术的一个重要的研究与应用领域。

关键词

[核动力](#) [仿真技术](#) [发展](#)

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Development of Nuclear Power Simulation Technologies

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Abstract The status and characters on the development of nuclear power simulation technology were reviewed. The advance of nuclear power system simulator was analyzed emphatically. The new trend of nuclear power simulation technology advance was explored. According to the analysis results, it is pointed out that the advancing tendency of nuclear power simulation technology is modularization, integration, digital, virtual, network and intelligence simulation. Based on 3-D simulation design, the nuclear power simulation technologies are expanded in the direction of the design and manufacture of nuclear power system, and the design of digital nuclear power plant(NPP), which takes the whole life cycle management of NPP as the design goal, is an important field of the nuclear power simulation technology research and application.

Key words [nuclear](#) [power](#) [simulation](#) [technology](#) [development](#)

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