

Active jet flight control technology

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Active jet control technology can change the structure and physical characteristics of the flow field around the aircraft by applying controllable aerodynamic excitation to the flow field, so as to achieve the purpose of flow control. Active jet control technology can restrain flow separation, control boundary layer, control boundary layer interference, control the internal flow of engine compressor and turbine, and improve the performance of aircraft from many aspects. It has shown revolutionary advantages in flow control, structural weight reduction, flight control and other fields, and is becoming an important emerging field in the international aerospace field Research topics. The purpose of this session is to bring together experts, scientists and engineers throughout the world to present and share their recent research results and innovative ideas related to active jet control technology. The topics of this thesis include but are not limited to: new methods, new platforms, innovative applications and research trends of active jet dynamics modeling, active jet control methods, active jet rudderless flight control, active jet thrust vector control, etc.

主动射流飞行控制技术

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主动射流控制技术将可控气动激励作用于流场, 改变飞行器周围的流场结构和物理特性, 从而达到流动控制目的。主动射流控制技术能够抑制流动分离、控制附面层、控制激波与激波 / 附面层干扰、控制发动机压气机与涡轮内部流动, 可从多个层面改善飞行器的性能, 在流动控制、结构减重、飞行控制等诸多领域表现出了革命性的优势, 正成为国际上航空航天领域新兴的重要研究课题。本专题旨在与世界范围内相关专家、学者、工程师一道, 共同展示和分享主动射流控制在飞行器相关应用的新思路和新成果。本专题论文主题包含但不限于: 主动射流动力学建模, 主动射流控制方法, 主动射流无舵飞行控制, 主动射流推力矢量控制等方面的新方法、新平台、相关创新应用及研究趋势。