INS Based Integrated Navigation in Challenging Environments

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INS based integrated navigation in challenging environments is a cutting-edge research area. Performing INS based integrated navigation in underwater, underground, indoor, urban canyons, high dynamic motion conditions and other challenging environments has become a hot research topic. The purpose of this session is to bring together experts, scientists and engineers throughout the world to present and share their recent research and innovation ideas to INS based integrated navigation in challenging environments. The topics of papers include, but are not limited to: plug-and-play open framework navigation systems, visual-inertial navigation, bio-inspired navigation, high precision INS/odometer integrated navigation, GNSS/INSS seamless integrated navigation, GNSS anti-jamming techniques, polarized light compass orientation methods, novel navigation sensing, pedestrian navigation, deep learning based navigation and other related innovation applications and new trends.

挑战性环境下惯性基组合导航

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挑战性环境下的惯性基组合导航是导航技术的前沿研究领域，在水下、地下、室内、城市“峡谷”等卫星导航拒止环境下和高动态运动等复杂条件下实现基于惯性导航的组合导航已经成为当前研究热点。本专题旨在与世界范围内相关专家、学者、工程师一道，共同展示和分享挑战性环境下的惯性基组合导航方法及应用的新思路和新成果。本专题论文主题包含但不限于：支持即插即用的开放式组合导航架构、视觉/惯性组合导航、基于仿生学的智能导航方法、高精度 INS/里程计组合导航、GNSS/INS 无缝导航、GNSS 抗干扰技术、大气偏振光定向、新型导航传感器、行人导航、基于深度学习的导航新方法等，相关创新应用及研究新趋势。