Resilient Structure in Swarm Unmanned System

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The self-adaptive adjustment of the structure in the swarm unmanned system is a big challenge in the unmanned system. When mission and environment changes and part of systems be damaged, the swarm unmanned system needs a dynamically and reconfigurable network structure to support rapid structural mobility. It is required that the system has the ability to adjust the structure to adapt to these changes. 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 structural adaptation in unmanned systems. The topics of these papers include, but are not limited to the new methods, related applications, simulation platforms, and new research trends in swarm system structure based on self-adaptive theory, UAV swarm network technology, the swarm unmanned systems adaptive system structure design, collaborative perception, command decision, group learning and evolution game.

无人机集群中的弹性结构

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集群无人系统的结构自适应调整是无人系统的研究难点。面对环境、任务改变、部分系统损坏情形下，集群无人系统需要动态的、可重构的网络结构支持快速结构机动，这就要求系统具备能够适应动态处理变化的调整结构的能力。本专题旨在与世界范围内相关专家、学者、工程师一道，共同展示和分享结构自适应在无人系统中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：集群系统结构自适应理论基础，无人机集群组网技术，集群无人系统自适应体系结构设计，协同感知、指挥决

策、群体学习、博弈演化等方面的新方法，基础自主仿真平台，相关创新应用及研究新趋势。