2022 第十届中国指挥控制大会
特邀专题论坛简介

特邀专题名称

空天大数据智能处理与共享应用

召集人的姓名、职称、单位和邮箱

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特邀专题简介（背景、目的、意见和内容）

随着对地观测、计算机技术的飞速发展，可以获取海量、高时间和空间分辨率的空天数据，为社会经济和国防安全提供有力支撑。空天信息处理与应用已进入大数据时代，迫切需要突破新的数据处理建模技术，打造新的分析应用模式。

近年来，人工智能研究领域深度学习的成功为空天大数据的智能处理与应用提供了技术基础。然而，空天观测数据传感器类型多样、数据尺度差异大、特性/特征机理复杂等特点，使得现有人工智能方法体系难以进一步提高性能。因此，在了解空天大数据特点的基础上，构建适合本领域的智能模型、方法和解译系统，是充分发挥空天大数据效益的有效途径。

本特邀专题邀请以下与“空天大数据智能处理与共享应用”主题相关的包含创新思想、概念、新发现、改进以及新应用的原创论文。

- 空天大数据特性建模与表征
- 空天大数据智能信息提取
- 空天大数据组织、共享、分发
- 空天大数据典型应用，包括：指控、应急、国土、城建、交通、水利、农林等军民领域案例剖析
- 其他空天大数据相关前沿技术方法

C2-China 2022
Invited Session Summary

Title of Session

Intelligence Processing and Sharing Applications of Aerospace Big Data

Name, Salutation, Affiliation and Email of Organizers

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Details of Session (background, purpose, significance and scope)

With the rapid development of earth observation and computer technology, massive, high temporal and spatial resolution aerospace data can be obtained, providing reliable data support for social economy and national defense security. Aerospace information processing and application has entered the era of big data. It is urgent to explorer new data processing and modeling technologies and create new analysis and application models.

In recent years, the great success of deep learning in the field of computer vision provides a technical foundation for the intelligent processing and sharing applications of aerospace big data. Even so, the very unique characteristics of aerospace big data, such as the diverse sensor types, large differences in data scales, and complex characteristics/feature mechanisms, make it difficult for existing deep learning methods to further improve performance. Therefore, constructing models, methods and system tools suitable for aerospace big data based on understanding the characteristics of them is an effective way to make better use of aerospace big data.

This invited session intends to report original papers related to the theme of "Intelligent Processing and Sharing Applications of Aerospace Big Data", including innovative ideas, concepts, new discoveries, improvements and new applications.

- Aerospace big data feature modeling and characterization
- Intelligent information extraction of aerospace big data
- Aerospace big data organization, sharing and distribution

- Typical application of aerospace big data, case analysis in military and civilian fields such as command and control, emergency response, land and resources, urban construction, transportation, water conservancy, agriculture and forestry, etc.
- Other cutting-edge technologies and methods related to aerospace big data