

ICICN2026 Track 1

Basic Information:

专栏题目

Title

中文：无线网络安全与隐私

英文：Wireless Network Security and Privacy

专栏介绍和征稿主题

Introduction and topics

中文：专栏以无线网络安全与隐私为主题，聚焦下一代无线网络安全、无线通信安全与无线系统中的隐私保护，征集原创未发表的高质量学术论文。具体涵盖 5G/6G 网络安全架构、开放无线接入网安全、网络切片隔离与防护、边缘计算安全及 AI/ML 赋能的下一代无线安全体系；物理层安全技术、认证与密钥管理协议、跨层安全设计优化、以及针对干扰、欺骗与窃听的主动防御机制；无线网络中的差分隐私、位置隐私与匿名性保护、无线边缘计算的联邦学习、以及面向海量无线数据的隐私聚合与分析等技术。征稿范围包括但不限于：

1. 下一代无线网络安全

- 5G/6G 网络安全架构与协议
- 开放无线接入网（O-RAN）安全与漏洞
- 无线网络中的边缘计算安全
- 网络切片安全与隔离
- 基于 AI/ML 的 5G/6G 系统安全

2. 无线通信安全

- 物理层安全技术
- 认证与密钥管理协议
- 安全路由与介质访问控制
- 干扰、欺骗和窃听对抗
- 跨层安全设计与优化

3. 无线系统中的隐私保护

- 无线网络中隐私保护的数据聚合与分析
- 基于物理层安全的隐私保护机制
- 无线定位中的差分隐私
- 无线边缘计算的联邦学习
- 新兴无线技术中的隐私风险

英文：This Special Issue is dedicated to wireless network security and privacy, focusing on next-generation wireless network security, wireless communication security, and privacy protection in wireless systems. We solicit high-quality, original, and unpublished academic papers covering, but not limited to, the following specific topics: 5G/6G network security architectures, Open Radio Access Network (O-RAN) security, network slice isolation and protection, edge computing security, and AI/ML-empowered next-generation wireless security systems; physical layer security technologies, authentication and key management protocols, cross-layer security design and optimization, and active defense mechanisms against jamming, spoofing, and eavesdropping; differential privacy in wireless networks, location privacy and anonymity protection, privacy-preserving federated learning, and privacy-preserving aggregation and analysis techniques for massive wireless data. The scope of the call for papers includes, but is not limited to:

1. Next-Generation Wireless Network Security

- 5G/6G network security architecture and protocols
- Open RAN (O-RAN) security and vulnerabilities
- Edge computing security in wireless networks
- Network slicing security and isolation
- AI/ML-driven security for 5G/6G systems

2. Wireless Communication Security

- Physical layer security techniques
- Authentication and key management protocols
- Secure routing and medium access control
- Jamming, spoofing, and eavesdropping countermeasures
- Cross-layer security design and optimization

3. Privacy Protection in Wireless Systems

- Privacy-Preserving Data Aggregation and Analysis in Wireless Networks
- Physical Layer Security-Based Privacy Protection Mechanisms for Wireless Systems
- Differential Privacy in Wireless Localization Systems
- Federated Learning for Privacy-Preserving Wireless Edge Computing
- Privacy Risks in Emerging Wireless Technologies (6G, SatCom, AI-enabled Networks)

Track Chair(s):

	姓名 Name	谭伟杰/Weijie Tan
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Organizer's Brief Biography

中文：贵州省大数据实验室副教授，硕士生导师，贵州省科技厅“科技专员”，曾任贵州省工业与信息化厅“产业技术创新副总”，CCF 高级会员，贵阳市高新区首批区管专家。主持包括国家重点研发计划课题、国家自然科学基金、贵州省科技厅基础研究面上项目，重点实验室开放课题等科研项目 20 多项。近 5 年在国际知名期刊发表科研论文 100 余篇，授权国家发明专利 30 余项，获得计算机软件著作权 30 余件，是 30 多个国际信息领域知名期刊审稿人，多个中文核心期刊和英文期刊的青年编委。研究方向包括通信网络安全，人工智能应用与安全。

英文：Associate professor and master's supervisor at the Guizhou Provincial Big Data Laboratory, and a "Science and Technology Specialist" at the Guizhou Provincial Science and Technology Department, I have previously served as the "Deputy Director of Industrial Technology Innovation" at the Guizhou Provincial Department of Industry and Information Technology. I am a senior member of the China Computer Federation (CCF) and one of the first district-managed experts in the Guiyang High-tech Zone. I have led over 20 scientific research projects, including national key research and development plan projects, National Natural Science Foundation of China grants, basic research general projects from the Guizhou Provincial Science and Technology Department, and open projects from key laboratories. Over the past five years, I have published more than 100 scientific research papers in internationally renowned journals, obtained over 30 national invention patents, and secured over 30 computer software copyrights. I am a reviewer for over 30 well-known international journals in the field of information technology, and a young editorial board member for multiple Chinese core journals and English journals. My research interests include communication network security, artificial intelligence applications, and security.

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Organizer's Brief Biography

中文：主要从事无线通信安全传输、隐蔽通信以及空天地一体化网络方面的研究工作，累计在 IEEE TWC/TCOM/TCCN/TGCN/TVT/PRA/OE/ Sci. China Phys. Mech. Astron.等学术期刊发表学术论文 30 余篇。研究成果获 2024 信息通信领域科技论文激励计划、2024 和 2025 中国科学最佳论文奖等荣誉称号。担任江苏大学学报/西安邮电大学学报/南通大学学报自然科学版青年编委。

英文：The research primarily focuses on secure transmission in wireless communications, covert communication, and space-air-ground integrated networks. I have published over 30 papers in IEEE TWC, TCOM, TCCN, TGCN, TVT, PRA, OE, and Sci. China Phys. Mech. Astron. My research achievements have been recognized with honors such as the 2024 Information and Communication Technology Paper Incentive Program Award, and the Science China Best Paper Award for both 2024 and 2025. I currently serve as a Youth Editorial Board Member for the Journal of Jiangsu University (Natural Science Edition), Journal of Xi'an University of Posts and Telecommunications, and Journal of Nantong University (Natural Science Edition).