



中国科技核心期刊

ISSN 1000-0801

CN 11-2103/TN

电信科学

Telecommunications Science

第38卷第6期 Vol. 38 No. 6 | 2022年6月 Jun. 2022



中国通信学会



人民邮电出版社有限公司

中国·北京 Beijing, China

电 信 科 学

第 38 卷第 6 期 2022 年 6 月

目 次

专题：新型网络技术

论网络技术体制发展范式的变革——网络之网络·····	郭江兴 [2022140](3)
论算力时代的三定律·····	李正茂, 王桂荣 [2022141](13)
异构网络融合共生的需求、挑战与架构·····	罗洪斌, 张 珊, 王志远 [2022132](18)
云原生网络开创智能应用新时代·····	万晓兰, 李晶林, 刘克彬 [2022130](31)
可编程网络数据平面技术进展·····	张昕怡, 潘 恒, 谢高岗 [2022131](42)
算力基础设施发展现状与趋势展望·····	邢文娟, 雷 波, 赵倩颖 [2022137](51)
算力网络发展中的若干关键技术问题分析·····	何 涛, 杨振东, 曹 畅, 张 岩, 唐雄燕 [2022147](62)
星算网络——空天地一体化算力融合网络新发展·····	邓平科, 张同须, 施南翔, 张 童, 邵天竺, 郑韶雯 [2022138](71)

研究与开发

基于价值差异学习的多小区 mMTC 接入算法·····	李 昕, 孙 君 [2022152](82)
基于联合特征与随机森林的伪装语音检测·····	于佳祺, 简志华, 徐 嘉, 游 林, 汪云路, 吴 超 [2022089](91)
简化频域 Volterra 级数的 S 模式信号接收系统特性·····	宫峰勋, 李建坤[2022153](100)
互联网企业创新效率与规模关系的实证分析·····	张姗姗, 王馥芸[2022135](111)
5G-Advanced 网络的位置服务与关键技术·····	艾 明, 侯云静, 周润泽, 蔡 茂[2022042](120)
基于 LTE 测量报告的 2.1 GHz 和 3.5 GHz 5G SA 覆盖评估方法·····	陆健贤, 黄济丘, 胡明星, 林衡华[2022032](131)

工程与应用

下一代电信 IT 架构演进初探：业务功能虚拟化（BFV）·····	乔 稳, 王晓征, 孙震强, 任 赣, 刘云新, 杨爱东, 王 鹏, 王 达, 叶晓舟, 欧阳晔[2022093](143)
700 MHz 频段在 5G 网络优化中的应用研究·····	张叶江, 孙 磊, 尹以雁, 杨晓康, 胡 坚[2022083](156)
5G 远端干扰分析与解决方案研究·····	李玉洁[2022143](164)
算力网络部署方案分析·····	王丽莉[2022134](172)
OTN 在电力通信中应用的问题探讨·····	陈新南, 连伟华, 马一宁[2022149](181)

Telecommunications Science

Vol.38 No.6 June 2022

Contents

Topic: New Network Technology

- Revolution of the development paradigm of network technology system——network of networks..... *WU Jiangxing* [2022140](3)
- Laws of computing power in the computing power era..... *LI Zhengmao, WANG Guirong* [2022141](13)
- Interconnection and coexistence of heterogeneous network: requirements, challenges, and architecture
- *LUO Hongbin, ZHANG Shan, WANG Zhiyuan* [2022132](18)
- Cloud native network creating a new era of intelligent application..... *WAN Xiaolan, LI Jinglin, LIU Kebin* [2022130](31)
- Progress in programmable network data plane..... *ZHANG Xinyi, PAN Heng, XIE Gaogang* [2022131](42)
- Development status and trend prospect of computing power infrastructure
- *XING Wenjuan, LEI Bo, ZHAO Qianying* [2022137](51)
- Analysis of some key technical problems in the development of computing power network
- *HE Tao, YANG Zhendong, CAO Chang, ZHANG Yan, TANG Xiongyan* [2022147](62)
- Computing satellite networks—the novel development of computing-empowered space-air-ground integrated networks·
- *DENG Pingke, ZHANG Tongxu, SHI Nanxiang, ZHANG Tong, SHAO Tianzhu, ZHENG Shaowen* [2022138](71)

Research and Development

- Value-difference learning based mMTC devices access algorithm in multi-cell network *LI Xin, SUN Jun* [2022152](82)
- Spoofing speech detection algorithm based on joint feature and random forest.....
- *YU Jiaqi, JIAN Zhihua, XU Jia, YOU Lin, WANG Yunlu, WU Chao* [2022089](91)
- Characteristics of simplified frequency-domain Volterra series based S-mode receiver *GONG Fengxun, LI Jiankun* [2022153](100)
- An empirical analysis of the relationship between innovation efficiency and scale of Internet companies.....
- *ZHANG Shanshan, WANG Fuyun* [2022135](111)
- Location services and technologies of 5G-Advanced network
- *AI Ming, HOU Yunjing, ZHOU Runze, CAI Mao* [2022042](120)
- An approach of LTE measurement report based 2.1 GHz and 3.5 GHz 5G SA coverage evaluation
- *LU Jianxian, HUANG Jiqiu, HU Mingxing, LIN Henghua* [2022032](131)

Engineering and Application

- A pilot study of Telco's next generation IT architecture evolution: business function virtualization (BFV)
- *QIAO Wen, WANG Xiaozheng, SUN Zhenqiang, REN Gan, LIU Yunxin, YANG Aidong, WANG Peng, WANG Da,*
- *YE Xiaozhou, OUYANG Ye* [2022093](143)
- Research on the application of 700 MHz frequency band in 5G network optimization
- *ZHANG Yejiang, SUN Lei, YIN Yiyang, YANG Xiaokang, HU Jian* [2022083](156)
- Research on remote interference analysis and solution for 5G..... *LI Yujie* [2022143](164)
- Construction scheme analysis of computing force network..... *WANG Lili* [2022134](172)
- Discussion on the issues of applying OTN in power grid communications.....
- *CHEN Xinnan, LIAN Weihua, MA Yining* [2022149](181)