# 郑策

## 个人信息

索尼中国研究院 ce.zheng@sony.com chriszhengce123@163.com +86 13335281561



工作经历	
索尼中国研究院	2021.08 - 至今
无线研究员/研究科学家(科学家岗)	
国际标准组织 3GPP SA2 代表(Delegate)	
法国科学研究院(CNRS)	2017.10 - 2020.10
研究员	
博士课题	
"Impulsive and Dependent Interference Modeling in IoT Networks", funded by ARBurst	
教育背景	
<b>里尔大学</b> ,法国,博士	2017.10 - 2020.10
导师: Laurent CLAVIER & Malcolm EGAN	
<b>奥尔堡大学</b> ,丹麦,项目交换	2019.09 - 2019.12
导师: Troels PEDERSEN & Petar POPOVSKI (IEEE Fellow)	
西安交通大学,中国,硕士	2013.09 - 2016.07
导师: 罗新民	
<b>哈尔滨工业大学</b> ,中国,本科	2009.09 - 2013.07
导师: 赵洪林	
访学经历	
CITI-LAB, INSA Lyon,里昂,法国	2018.12
1st Winter School on Information Theory and Signal Processing for Internet of Things	
<b>德岛大学</b> ,德岛,日本	2014.07 - 2014.08
The Electrical and Information Science Course Program	
<b>加州大学洛杉矶分校</b> ,洛杉矶,美国	2014.02 - 2014.03
American Language Center Intensive English Communication Program	
奖励荣誉	
Mobility Grant, 欧盟	2019
支持本人在丹麦奥尔堡大学访问的费用	
IRACON 5th TS Grant, 欧盟	2019
支持本人在 INSA Lyon 访问的费用	
研究生奖学金, 中国	2016-2019
免除三年学费及生活费支持	

#### 学术论文

**Ce Zheng**, Shiyao Ma, Chen Sun, "How to Use Machine Learning to Aide Federated Learning: Exploiting Metadata in UE Selection", *In 2023 IEEE Communication Letters* (To be submitted)

Qiong Liu, Chenhao Wang, **Ce Zheng**, "Distributed Decisions on Optimal Load Balancing in Loss Networks", (Submitted to ICC workshop 2023)

Tianming Zang, Ce Zheng(corresponding author), Wei Chen, Shiyao Ma, Chen Sun, "A General Solution for Straggler Effect and Unreliable Communication in Federated Learning", *In 2023 IEEE International Conference on Communications (ICC)*. (Accepted)

Ce Zheng, Malcolm Egan, Laurent Clavier, Gareth W. Peters, Jean-Marie Gorce, "On the interference arising from random spatial fields of interferers utilizing multiple subcarriers", *In: EURASIP Journal on Wireless Communications and Networking*. 2022; Vol. 2022.

Ce Zheng, Malcolm Egan, Laurent Clavier, Petar Popovski, Anders Ellersgaard Kalør, "Stochastic Resource Allocation for Outage Minimization in Random Access with Correlated Activation", *In 2022 IEEE Wireless Communications and Networking Conference (WCNC)*. (pp. 1-6), Austin, US

Ce Zheng, Malcolm Egan, Laurent Clavier, Petar Popovski, Anders Ellersgaard Kalør, "Stochastic Resource Optimization of Random Access for Transmitters with Correlated Activation", *In 2021 IEEE Communication Letters* Ce Zheng, Malcolm Egan, Laurent Clavier, Troels Pedersen and Jean-Marie Gorce. "Linear Combining in Dependent  $\alpha$ -Stable Interference", *In 2020 IEEE International Conference on Communications (ICC)* (pp. 1-6), Dublin, Ireland.

Ce Zheng, Egan Malcolm, Laurent Clavier, Gareth W. Peters, Gorce, Jean-Marie. "On the Validity of Isotropic Complex  $\alpha$ -Stable Interference Models for Interference in the IoT" In 2019 GRETSI, Groupe d'Etudes du Traitement du Signal et des Images.

Ce Zheng, Egan Malcolm, Laurent Clavier, Gareth W. Peters, Gorce, Jean-Marie. "Copula-Based Interference Models for IoT Wireless Networks" *In 2019 IEEE International Conference on Communications (ICC)* (pp. 1-6), Shanghai, China.

Egan Malcolm, Laurent Clavier, **Ce Zheng**, Mauro De Freitas, Jean-Marie Gorce. "Dynamic interference for uplink SCMA in large-scale wireless networks without coordination" *EURASIP Journal on Wireless Communications and Networking* 2018, no. 1 (2018): 213.

Ce Zheng, Jiancun Fan, and Xinmin Luo. "Spectrum and energy efficiency analysis of ultra dense network with sleep." 2016 8th IEEE International Conference on Communication Software and Networks (ICCSN).

### 专利

**Ce Zheng**, Chen Sun. "A performance improvement and UE selection scheme based on sidelink enhancement in federated learning". 2023 (filing)

**Ce Zheng**, Chen Sun. "A Split Learning (Model Splitting) Aided Federated Learning (SL-aided FL) Network". 2023 (filing)

**Ce Zheng**, Chen Sun. "A Sidelink-enhanced Scheme for UE Selection, UE Performing Order Selection, and Model Transmission Link Selection in Split Learning". 2023 (filed)

Wei Chen, Yuanrui Liu, Ce Zheng, Chen Sun. "Sidelink-Enhanced Model Splitting and Transmission Scheme between AI/ML Endpoints". 2022 (filed)

Ce Zheng, Chen Sun. "A Service Guarantee Scheme in Federated Learning (FL) Network". 2022 (filed)

Ce Zheng, Chen Sun. "Handover in Hierarchical Federated Learning Network". 2022 (filed)

Wei Chen, Junjie Wu, Ce Zheng, Chen Sun. "Federated Learning in V2X Communications for Side-link Enhancement". 2022 (filed)

Wei Chen, Zhanyuan Xie, Ce Zheng, Chen Sun. "A Scheme to Ensure Service Continuity During Handover between Vehicle Mounted Relays—Users Outside the Vehicle". 2022 (filed)

### 学术报告

**Online** (29/11/2019 and 30/11/2021), *Choosing a proper starting point in SGD by exploiting dependence between features* — *an intuition from resource allocation in event triggered communication* 索尼 AI 大会, 索尼

**AALBORG** (13/11/2019 and 27/11/2019), *Copula Theory in Communication Society*, invited talk and hosted by Professor Petar POPOVSKI and Professor Troels PEDERSEN, Department of Electronics, 奥尔堡大学, 奥尔堡, 丹麦

**AALBORG** (30/09/2019 and 03/10/2019), *Modeling Impulsiveness and Dependence of Interference in Wireless Communication Network*, invited talk and hosted by Professor Troels PEDERSEN and Professor Petar POPOVSKI, Department of Electronics, 奥尔堡大学, 奥尔堡, 丹麦

**GUANGZHOU** (30/05/2019), *Interference Modeling for Wireless IoT Networks*, 特邀报告 (陈立教授和 Dr. Ting-yi Wu), 电子与通信工程学院, 中山大学, 广州, 中国

**RENNES** (06/03/2019), *Modeling Interference with*  $\alpha$ -stable and Copulas, ARBurst Project meeting, ITER Lab, 雷恩, 法国

LILLE (12/06/2018), Dependent Impulsive Interference modeling, Seminar on 'Mathematics and IoT', IRCICA Lab, 里尔, 法国

LYON (11/10/2018), Modeling of Dependence in Impulsive Interference and Copula Theory, ARBurst Project meeting, CITI-lab, 里昂, 法国

**RENNES** (14/02/2018), *Copula Theory and Dependence in Interference*, ARBurst Project meeting, ITER Lab, 雷恩, 法国.

#### 研究技能

Matlab, Latex, Stochastic Geometry, Copula Theory,  $\alpha$ -stable, Markov Chain, Federated Learning, NOMA, SCMA, NB-IoT, LPWAN, XR, AI, VMR, 3GPP SA1 & SA2

#### 语言技能

普通话 (母语);

英语 (精通): TOEFL 96;

法语 (初级): A1