# 郑策

## 个人信息

职位:博士后研究员

工作单位: 巴黎理工—巴黎高等电信学院 Email: ce.zheng@telecom-paris.com

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个人主页: https://chriszhengce.github.io/index.html

出生地: 山东、中国

出生日期: 1991年10月15日

#### 工作经历

巴黎理工—巴黎高等电信学院 2023.07 - 2024.12

博士后研究员

索尼中国研究院 2021.08 - 2023.06

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) 研究方向:联邦学习, XR, Sidelink等

法国科学研究院(CNRS) 2017.10 - 2020.10

研究员

#### 博士课题

#### 教育背景

 里尔大学, 法国, 博士
 2017.10 - 2020.10

 导师: Laurent CLAVIER, Malcolm EGAN, Jean-Marie GORCE
 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

**哈尔滨工业大学**,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

<sup>&</sup>quot;Impulsive and Dependent Interference Modeling in IoT Networks", funded by ARBurst

**德岛大学**, 德岛, 日本 2014.07 - 2014.08

The Electrical and Information Science Course Program

加州大学洛杉矶分校, 洛杉矶, 美国

2014.02 - 2014.03

American Language Center Intensive English Communication Program

#### 奖励荣誉

Mobility Grant, 欧盟

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)

Sun, Chen, Shiyao Ma, **Ce Zheng**, Songtao Wu, Tao Cui, and Lingjuan Lyu. "Federated Learning over a Wireless Network: Distributed User Selection through Random Access" in 2023 Vehicular Technology Magazine (accepted).

Qiong Liu, Chenhao Wang, **Ce Zheng**, "Distributed Decisions on Optimal Load Balancing in Loss Networks", in international Workshop on Resource Allocation and Cooperation in Wireless Networks (RAWNET), WiOPT 2023 (accepted)

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)*.

**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

郑策, 孙晨."(一种分层树状联邦学习下的用户选择及资源分配方法)". 申请号: 202310513237.9

郑策, 孙晨. "用于无线通信系统的电子设备、方法和存储介质 (一种联邦学习中, 基于 sidelink 增强的性能提升方案及用户选择机制)". 申请号: 202310436139.X

郑策, 孙晨. "用于分割学习的电子设备和方法、计算机可读存储介质(分割学习下, sidelink 增强的用户选择、用户执行顺序选择和模型传输链路选择方案)". 申请号: 202310116586.7

郑策, 孙晨. "用于无线通信的电子设备和方法、计算机可读存储介质 (SL-aided FL-分割学习辅助的联邦学习网络)". 申请号: 202310342408.6

郑策, 孙晨. "用于无线通信的电子设备和方法、计算机可读存储介质(联邦学习下的服务保障机制)". 申请号: 202211286543.5

郑策, 孙晨. "'分层联邦学习网络中的切换(一种分层联邦学习下的服务保障机制)". 申请号:202210936728.X

陈巍, 刘远瑞, 郑策, 孙晨. "用于模型推理的电子设备、方法和存储介质 (D2D 辅助下的用户与网络间的模型分割)". 申请号: 202211502760.3

陈巍, 吴俊杰, 郑策, 孙晨. "用于无线通信的电子设备和方法、计算机可读存储介质(联邦学习的 V2X 边缘链路性能提升方案)". 申请号: 202210809772.4

陈巍、谢瞻远、郑策、孙晨、"基于中继传输节点的车辆位置信息传输方法及系统"。申请号: 202210582464.2

### 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*, 素尼 AI 大会, 素尼

**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

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

LILLE (12/06/2018), Dependent Impulsive Interference modeling, IRCICA Lab, 里尔, 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;

日语 (初级)