简介

何成于华中科技大学获得博士学位（2012-2018），曾任南方科技大学博士后（2018-2020）、研究助理教授/副研究员（2020.7-现在）。何成博士长期从事计算智能相关领域的方法与应用研究工作，**近五年在计算智能领域顶级期刊 IEEE TEVC（影响因子：11.169）、IEEE TCYB（影响因子：11.079）、IEEE TSMC（影响因子：9.309）、TNNLS（影响因子：8.793）等发表长文 13 篇，其中第一/通讯作者 7 篇。**近五年共计发表论文 38 篇(JCR Q1: 21 篇)，其中 SCI 期刊论文 26 篇，EI 会议论文 12 篇，其中一篇会议论文荣获 BIC-TA2019 会议最佳论文奖。

此外，何成博士的部分研究成果已转化为实际应用：在华中科技大学自动化学院读博期间，为电力电子系设计了一套基于计算智能的高阶滤波器多目标设计方法，成功地在不同滤波频率上的高效滤波；在博士后研究期间，与华中科技大学电气学院李红斌教授团队合作，参与并设计了基于计算智能的群体电压互感器误差评估方法。基于这些基础，先后作为核心参与人员申报了**工信部**民用航空专项项目（人工智能子课题，分配经费 380 万）、**华为海思**项目（经费 128 万），并以负责人身份获批**国家自然科学基金**青年基金项目（经费 16 万元）和深圳市优秀科技创新人才培养项目（经费 20 万元），以子课题负责人身份获批国家自然科学基金**联合基金项目**（经费 100 万）。

简　历

姓　　名：　何成
性　　别：　男
出生日期：　1989 年 08 月 13 日
学　　历：　博士
当前任职：　南方科技大学，计算机科学与工程系
电　　话：　18202716632
邮　　箱：　chenghehust@gmail.com
研究方向：　计算智能、深度学习、进化计算

· 主要经历 ·

2020/07 至今	南方科技大学	研究助理教授（副研究员）
2018/11—2020/07	南方科技大学	博士后
2018/03—2018/10	南方科技大学	访问学者
—— 合作导师：Prof. Xin Yao、IEEE Fellow		
2016/09—2017/03	英国萨里大学	访问学生
—— 合作导师：Prof. Yaochu Jin、IEEE Fellow		
2012/09—2018/03	华中科技大学	博士研究生
2008/09—2012/09	武汉科技大学	学士

· 荣誉及奖励 ·

2020: 校长卓越博士后，南方科技大学

2019: The 14th International Conference on Bio-inspired Computing: Theories and Applications (BIC-TA 2019)，会议最佳论文奖

· 参与项目 ·

2020－2024: 基于深度学习的翼型设计与优化，核心参与人员，批准经费 380 万/2100 万人民币，工信部。

2020－2022: 用于小型化芯片的演化神经架构搜索，核心参与人员，批准经费 128 万人民币，华为海思。

2020－2023: 生成学习驱动的昂贵大规模多目标优化，负责人，批准经费 16 万人民币，国家自然科学基金青年基金。

2021-2024: 基于计算智能的电力互感器群体测量误差状态在线评估关键技术及应用，子课题负责人，获批经费 100 万人民币，国家自然科学基金联合基金重点支持项目。

2021-2022: 计算智能驱动的电压互感器无标定误差评估研究，负责人，获批经费 20 万元人名币，深圳市科技创新人才项目。

· 代表论文 ·

期刊文章 (*:通讯作者)

1. **Cheng He**, Ran Cheng*, Ye Tian, Xingyi Zhang, Kay Chen Tan and Yaochu Jin. Paired Offspring Generation for Constrained Large-Scale Multiobjective Optimization. IEEE Transactions on Evolutionary Computation, 25(3), 448-462, 2021.（影响因子：11.168）
2. **Cheng He**, Shihua Huang, Ran Cheng*, Kay Chen Tan, and Yaochu Jin. Evolutionary Multiobjective Optimization Driven by Generative Adversarial Networks (GANs). IEEE Transactions on Cybernetics, 51 (6), 3129-3142, 2021.（影响因子：11.027）
3. **Cheng He**, Ran Cheng*, and Danial Yazdani. Adaptive Offspring Generation for Evolutionary Large- Scale Multiobjective Optimization. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 2020.（影响因子：9.309）
4. **Cheng He**, Hao Tan, Shihua Huang, Ran Cheng*. Efficient Evolutionary Neural Architecture Search by Modular Inheritable Crossover. Swarm and Evolutionary Computation, 64(2021), 100894, 2021. （影响因子：6.912）
5. **Cheng He**, Ran Cheng*, Chuanji Zhang, Ye Tian, Qin Chen and Xin Yao. Evolutionary Large-Scale Multiobjective Optimization for Ratio Error Estimation of Voltage Transformers. *IEEE Transactions on Evolutionary Computation*, 24(5), 868-881, 2020.（影响因子：11.168）
6. **Cheng He**, Lianghao Li, Ye Tian, Xingyi Zhang,Ran Cheng*, Yaochu Jin, and Xin Yao. Accelerating Large-scale Multiobjective Optimization via Problem Reformulation. *IEEE Transactions on Evolutionary Computation*, 23 (6), 949-961, 2019.（影响因子：11.168）
7. **Cheng He**, Hao Tan, Shihua Huang, Ran Cheng*. Efficient Evolutionary Neural Architecture Search by Modular Inheritable Crossover. Swarm and Evolutionary Computation, 64(2021), 100894, 2021. （影响因子：6.912）
8. **Cheng He**, Zhixiong Zhang, Jie Ye, Jinbang Xu, and Linqiang Pan*. Switching Ripple Suppressor Design of the Grid-Connected Inverters: A Perspective of Many-Objective Optimization with Constraints Handling. *Swarm and Evolutionary Computation*, 44, 293-303, 2019.（影响因子：6.912）
9. **Cheng He**, Ye Tian, Yaochu Jin, Xingyi Zhang, and Linqiang Pan*. A Radial Space Division Based Evolutionary Algorithm for Many-Objective Optimization. *Applied Soft Computing*, 61, 603-621, 2017.（影响因子：5.472）
10. **Cheng He**, Ye Tian, Handing Wang, and Yaochu Jin. A Repository of Real-World Datasets for Data- Driven Evolutionary Multiobjective Optimization. *Complex & Intelligent Systems*, 6, 189-197, 2020.（影响因子：3.791）
11. Ye Tian, Langchun Si, Xingyi Zhang*, Ran Cheng, **Cheng He**, Kay Chen Tan, and Yaochu Jin. Evolutionary Large-Scale Multi-Objective Optimization: A Survey. ACM Computing Surveys, accepted. （影响因子：10.282）
12. Hao Tan, Ran Cheng*, Shihua Huang, **Cheng He**, Changxiao Qiu, Fan Yang, and Ping Luo. RelativeNAS: Relative Neural Architecture Search via Slow-Fast Learning. IEEE Transactions on Neural Networks and Learning Systems, 2021. （影响因子：8.793）
13. Shangshang Yang, Tian Ye, **Cheng He**, Xingyi Zhang, Tan Kay Chen, Yaochu Jin. A Gradient-Guided Evolutionary Approach to Training Deep Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2021. （影响因子：8.793）
14. Zhenshou Song, Handing Wang, **Cheng He**, and Yaochu Jin. A Kriging-Assisted Two-Archive Evolutionary Algorithm for Expensive Many-Objective Optimization. IEEE Transactions on

Evolutionary Computation, 2021. （影响因子：11.168）

15. Jianqing Lin, **Cheng He**, Ran Cheng*. Adaptive Dropout for High-dimensional Expensive Multiobjective Optimization. Complex & Intelligent Systems. 2021. （影响因子：3.791）
16. Jing Wang, Runze Li, **Cheng He**, Haixin Chen, Ran Cheng, Chen Zhai, and Miao Zhang. An Inverse Design Method for Supercritical Airfoil based on Conditional Generative Models. Chinese Journal of Aeronautics, 2021. （影响因子：2.215）
17. Yanguo Kong*, Xiangyi Kong*, **Cheng He**, Changsong Liu, Liting Wang, Lijuan Su, Jun Gao, Qi Guo, and Ran Cheng*. Constructing an Automatic Diagnosis and Severity-Classification Model for Acromegaly Using Facial Photographs by Deep Learning. Journal of Hematology & Oncology,13(1): 1-4, 2020. （影响因子：10.743）
18. Linqiang Pan, **Cheng He**, Ye Tian, Handing Wang, Xingyi Zhang, and Yaochu Jin*. A Classification- Based Surrogate-Assisted Evolutionary Algorithm for Expensive Many-Objective Optimization. *IEEE Transactions on Evolutionary Computation*, 23(1), 74-88, 2019.（影响因子：11.168）
19. Linqiang Pan, **Cheng He**, Ye Tian, Yansen Su, and Xingyi Zhang*. A Region Division Based Diver- sity Maintaining Approach for Many-Objective Optimization. *Integrated Computer-Aided Engineering*, 24(3), 279-296, 2017.（影响因子：4.706）
20. Linqiang Pan, Lianghao Li, Ran Cheng, **Cheng He***, and Kay Chen Tan. Manifold Learning Inspired Mating Restriction for Evolutionary Multi-Objective Optimization with Complicated Pareto Sets. *IEEE Transactions on Cybernetics*, 2020.（影响因子：11.027）
21. Linqiang Pan, Wenting Xu, Lianghao Li, **Cheng He***, and Ran Cheng*. Adaptive Simulated Binary Crossover for Rotated Multi-Objective Optimization. *Swarm and Evolutionary Computation*, 60, 100759, 2020.（影响因子：6.912）
22. Linqiang Pan, Lianghao Li, **Cheng He***, and Kay Chen Tan. A Subregion Division-Based Evolution- ary Algorithm with Effective Mating Selection for Many-Objective Optimization. *IEEE Transactions on Cybernetics*, 2020.（影响因子：11.027）
23.
24. Danial Yazdani, Ran Cheng*, **Cheng He**, and Jurgen Branke. Adaptive Control of Sub-Populations in Evolutionary Dynamic Optimization. *IEEE Transactions on Cybernetics*, 2020.（影响因子：11.027）
25. Ye Tian, **Cheng He**, Ran Cheng, and Xingyi Zhang. A Multi-Stage Evolutionary Algorithm for Better Diversity Preservation in Multi-Objective Optimization. *IEEE Transactions on Systems, Man and Cybernetics: Systems*, 2020.（影响因子：9.309）
26. Ye Tian, Xingyi Zhang, Ran Cheng*, **Cheng He**, and Yaochu Jin. Guiding Evolutionary Multiobjective Optimization with Generic Front Modeling. *IEEE Transactions on Cybernetics*, 50 (3), 1106-1119, 2020.（影响因子：11.027）
27. Zhanglu Hou, **Cheng He**, and Ran Cheng*. Reformulating Preferences into Constraints for Evolutionary Multi- and Many-Objective Optimization. *Information Sciences*, 541, 1-15, 2020. （影响因子：5.91）
28. Ran Cheng*, **Cheng He**, Yaochu Jin and Xin Yao. Model-based evolutionary algorithms: a short survey. *Complex & Intelligent Systems*, 4 (4), 283-292, 2018. （影响因子：3.791）
29. Wenbo Dong, Kang Zhou, Huaqing Qi, **Cheng He**, Jun Zhang*. A Tissue P System Based Evolutionary Algorithm for Multi-Objective VRPTW. Swarm and Evolutionary Computation, 39, 310-322, 2018. （影响因子：6.912）

会议文章 (*:通讯作者)

1. Lianghao Li, **Cheng He***, Ran Cheng, and Linqiang Pan*. Large-Scale Multiobjective Optimization via Problem Decomposition and Reformulation. IEEE Congress on Evolutionary Computation (CEC), 2021, accepted.
2. **Cheng He** and Ran Cheng*. Population Sizing of Evolutionary Large-Scale Multiobjective Optimization. International Conference Series on Evolutionary Multi-Criterion Optimization (EMO), 2021, 41-52.
3. Lianghao Li, **Cheng He***, Ran Cheng, and Linqiang Pan. Manifold Learning Inspired Mating Restriction for Evolutionary Constrained Multiobjective Optimization. International Conference Series on Evolutionary Multi-Criterion Optimization (EMO), 2021, 296-307.
4. Changwu Huang, Lianghao Li, **Cheng He***, Ran Cheng, and Xin Yao. Operator-Adapted Evolutionary Large-Scale Multiobjective Optimization for Voltage Transformer Ratio Error Estimation. International Conference Series on Evolutionary Multi-Criterion Optimization (EMO), 2021, 672-683.
5. Jianqing Lin, **Cheng He**, and Ran Cheng*. Dimension Dropout for Evolutionary High-Dimensional Expensive Multiobjective Optimization. International Conference Series on Evolutionary Multi-Criterion Optimization (EMO), 2021, 567-579.
6. Shengran Hu, Ran Cheng*, **Cheng He**, and Zhichao Lu. Multi-Objective Neural Architecture Search with Almost No Training. International Conference Series on Evolutionary Multi-Criterion Optimization (EMO), 2021, accepted.
7. **Cheng He**, Ran Cheng, Ye Tian, and Xingyi Zhang. Iterated Problem Reformulation for Evolutionary Large-Scale Multiobjective Optimization. IEEE Congress on Evolutionary Computation (CEC’2020), Glasgow, UK, June 2020.
8. Yiming Chen, Tianci Pan, **Cheng He***, and Ran Cheng*. Efficient Evolutionary Deep Neural Archi- tecture Search (NAS) by Noisy Network Morphism Mutation. The 14th International Conference on Bio-inspired Computing: Theories and Applications (BIC-TA), Zhengzhou, China, December 2019.
9. Hao Tan, **Cheng He***, Dexuan Tang, and Ran Cheng*. Efficient Evolutionary Neural Architecture Search (NAS) by Modular Inheritable Crossover. The 14th International Conference on Bio-inspired Computing: Theories and Applications (BIC-TA), Zhengzhou, China, December 2019. Best Paper Award
10. **Cheng He**, Ran Cheng, Yaochu Jin, and Xin Yao. Surrogate-Assisted Expensive Many-Objective Optimization by Model Fusion. IEEE Congress on Evolutionary Computation (CEC’2019), Wellington, New Zealand, June 2019.
11. Kanzhen Wan, **Cheng He**, Auraham Camacho, Ke Shang, Ran Cheng, and Hisao Ishibuchi. A Hybrid Surrogate-Assisted Evolutionary Algorithm for Computationally Expensive Many-Objective Optimization. IEEE Congress on Evolutionary Computation (CEC’2019), Wellington, New Zealand, June 2019.
12. **Cheng He**, Linqiang Pan, Hang Xu, Ye Tian, and Xingyi Zhang. An Improved Reference Point Sampling Method on Pareto Optimal Front. IEEE Congress on Evolutionary Computation (CEC’2016), Vancouver, Canada, June 2016.

· 学术服务 ·

会议服务

EMO'2021: 组织委员会成员, 2021 International Conference on Evolutionary Multi-Criterion Optimization, Shenzhen, China

IEEE CEC'2020: 组织委员会成员, 2020 IEEE Congress on Evolutionary Computation, Glasgow, United Kingdom

ACM GECCO'2020: 组织委员会成员, 2020 ACM Genetic and Evolutionary Computation Conference, Cancun, Mexico

ACM GECCO'2019: 组织委员会成员, 2019 ACM Genetic and Evolutionary Computation Conference, Prague, Czech Republic

IEEE SSCI'2019: 分会主席, 2019 IEEE Symposium Series on Computational Intelligence, Xiamen, China

BIC-TA'2019: 组织委员会成员, 14th Bio-Inspired Computing: Theories and Applications, Zhengzhou, China

IEEE CEC'2019: 组织委员会成员, 2019 IEEE Congress on Evolutionary Computation, Wellington, New Zealand

BIC-TA'2018: 组织委员会成员, 13th Bio-Inspired Computing: Theories and Applications, Beijing, China

BIC-TA'2017: 组织委员会成员, 12th Bio-Inspired Computing: Theories and Applications, Harbin, China

IEEE SSCI'2016: 组织委员会成员, IEEE Symposium Series on Computational Intelligence, Orlando, USA

BIC-TA'2015: 组织委员会成员, 10th Bio-Inspired Computing: Theories and Applications, Hefei, China

组织服务

IEEE CIS Shenzhen Chapter (2021~): Chair, Committee of Members Activities

Complex and Intelligent Systems, Special Issues "Emerging Topics in Evolutionary Multiobjective Optimization" (2021): Leading Guest Editor.

IEEE CIS Task Force (2021~): Chair, Intelligence Systems for Health

IEEE CIS Task Force (2020~): Member, Data-Driven Evolutionary Optimization of Expensive Problems