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工作经历

▶ 暨南大学环境与气候研究院

副研究员, 2022.01 – 至今

▶ 暨南大学环境与气候研究院

环境科学与工程学术学位硕士研究生导师, 2021.05 – 至今

▶ 暨南大学环境与气候研究院

资源与环境专业学位硕士研究生导师, 2018.03 – 至今

▶ 暨南大学环境与气候研究院

讲师, 2017.03 – 2021.12

教育经历

▶ 中山大学环境科学与工程学院

环境科学, 博士, 2012.09 – 2016.11

▶ 烟台大学环境与材料工程学院

环境科学, 硕士, 2009.09 – 2012.07

▶ 烟台大学环境与材料工程学院

环境科学, 学士, 2005.09 – 2009.07

研究方向与专长

▶ 陆气交换过程

陆面参数化改进及其对大气污染物模拟的影响

▶ 大气环境模式

城镇化发展对大气环境影响的模拟与评价技术

▶ 边缘计算应用

无人机机载雷达识别陆面特征与参数方法研发

科研教学服务情况

主持课题

- ▶ 大气污染物干沉降机制和参数化, 2017-2021
国家重点研发计划项目子任务
- ▶ 大气氮氧化物干沉降模拟的不确定性来源识别及模式改进, 2017-2020
国家自然科学基金青年科学基金项目
- ▶ 区域大气VOCs污染防控成效评估项目, 2021-2022
广州禾信仪器股份有限公司委托技术服务
- ▶ 基于数值模拟的珠三角区域大气臭氧污染经济损失评估, 2020-2021
广州市低碳经济研究基地社科研究项目
- ▶ 气象场滚动预报对空气质量预报效果影响研究, 2019-2020
深圳市生态环境局环境科研课题
- ▶ 国家环境监测总站大气VOC监测管理软件平台, 2018-2019
北京博赛德科技有限公司委托技术服务

参与课题

- ▶ “十四五”期间佛山市环境空气质量达标提升技术支持, 2021-2023
佛山市科技创新(公共服务能力提升)项目; 主持人: 王雪梅
- ▶ 佛山市大气VOCs污染特征及来源解析, 2021-2022
佛山市科技创新(公共服务能力提升)项目; 主持人: 司徒淑婷
- ▶ 第二次青藏高原综合科学考察研究, 2019-2022
科技部重大专项项目; 主持人: 俞鹏飞
- ▶ 闪电氮氧化物源排放及对地面空气质量的影响, 2020-2023
国家自然科学基金面上项目; 主持人: 刘永林
- ▶ 黑碳气溶胶排放清单校验的碳同位素方法研究, 2019-2022
国家自然科学基金面上项目; 主持人: 刘俊文

- ▶ 大气中有机酸的来源和二次生成机制研究, 2019-2022
国家自然科学基金面上项目; 主持人: 袁斌
- ▶ 探究全球尺度下强对流对气溶胶的垂直输送效率, 2019-2021
国家自然科学基金青年科学基金项目; 主持人: 俞鹏飞

教学工作_____

▶ 指导学生

- ◇ 胡泽超, 环境科学硕士, 2017-2020
毕业论文: 陆面模式Noah-MP热通量模拟性能的评估及不确定性来源分析
- ◇ 马明睿, 资源与环境专业硕士, 2017-2020
毕业论文: 排放、气象及传输过程对区域大气氮沉降的影响研究
- ◇ 刘玉琦, 资源与环境专业硕士, 2018-2021
毕业论文: 中国大气氮干沉降特征及其对土地利用和天气类型的响应分析
- ◇ 冯倍嘉, 资源与环境专业硕士, 2018-2021
毕业论文: 人为热源清单的建立及对城市热环境的影响
- ◇ 吴国彤, 资源与环境专业硕士生, 2020-2023
- ◇ 吴莉萍, 资源与环境专业硕士生, 2020-2023
- ◇ 蔡梓炯, 资源与环境专业硕士生, 2021-2024
- ◇ 杨丽婷, 资源与环境专业硕士生, 2021-2024

▶ 开设课程

- ◇ 环境地理信息系统理论与技术, (暨南大学/主讲), 2019-2021
- ◇ 环境管理系统工程, (暨南大学/主讲), 2018-2019
- ◇ 大气环境数值模拟, (中山大学/助教), 2015-2016
- ◇ 大气环境化学, (中山大学/助教), 2014-2015
- ◇ 大气探测学-气象观测及数据采集实验, (中山大学/助教), 2012-2013
- ◇ 生态环境与人类发展, (中山大学/助教), 2012-2013

学术兼职_____

- ◇ 地球环境学报"大气污染物干湿沉降"专辑特约编辑, 2021-2023

- ◇ 深圳市环境监测中心站评审专家, 2021-
- ◇ 国家自然科学基金委大气科学领域入库专家, 2020-
- ◇ 广东省基础与应用基础研究基金项目入库专家, 2019-
- ◇ Urban Climate、Remote Sensing、Atmospheric Pollution Research、ISPRS International Journal of Geo-Information、Sustainability、Rice Science等学术期刊审稿人, 2017-

► 培训/会议

- ◇ 合作组织第27届中国大气环境科学与技术大会大气污染物干湿沉降专题分会, 2021.11
- ◇ 受邀参与2019年长三角区域空气质量预测预报技术培训, 2019.05
- ◇ 合作组织The EGU General Assembly 2019: Nitrogen cycling in land-atmosphere: soil microbiological processes, surface gases flux, and atmospheric impacts (co-sponsored by ILEAPS), 2019.04
- ◇ 合作组织高分辨率空气质量信息系统与对策研究学术研讨会, 2019.02

主要业绩

荣誉奖励

- ◇ 暨南杰出青年学者支持计划第二层次培养对象, 2021
- ◇ 环境保护科学技术奖二等奖(6/9), 2018
- ◇ 广东省环境保护科学技术奖一等奖(6/14), 2016

成果/标准/专利/软著

- ◇ 刘婵芳, 何龙, 何鹏飞, 王雪梅, **常鸣**, 王伟文, 张毅强, 刘伟民, 汪云卿, 费蕾蕾, 刘斌, 黄剑, 房庆. 环境空气质量预报预警技术规范
深圳市地方标准. DB4403/T 208-2021 2021
- ◇ 刘婵芳, 颜敏, 麦有全, 何龙, 陈焕盛, 林丽衡, 何鹏飞, **常鸣**, 曾沛, 王伟文, 张毅强, 王文丁, 游泳, 陈嘉晔, 秦东明. 特大城市超高精度多模式空气质量预报决策系统研发与应用
深圳市2021年优秀创新生态环境科学技术成果. 粤环学鉴字(2021)8号 2021
- ◇ **常鸣**, 陈伟华, 游颖畅, 焦灵, 王伟文, 王雪梅. 一种大气污染来源快速自动识别系统及其方法 2020
专利申请号:202011358506.1

- ◇ 常鸣, 谢芊芊, 张琪, 王雪梅. 空气质量数值预报模式在线源解析工具软件 2019
证书号:软著登字第4454156号
- ◇ 黄敏娟, 王雪梅, 常鸣, 刘玉琦. 大气汞沉降人体暴露计算软件 2018
证书号:软著登字第3205081号
- ◇ 常鸣, 王雪梅. 大气数值模型静态地理资料快速转换接口软件 2016
证书号:软著登字第1407219号

论著

- ◇ *Atmospheric Reactive Nitrogen in China. Springer.* 2020
Lin Zhang, Xuemei Wang, Yuanhong Zhao, Qi Zhang, **Ming Chang**, Qiaoqiao Wang. Modelling
Atmospheric Nitrogen Deposition in China

论文

- Shuidi He, Minjuan Huang*, Lianming Zheng, **Ming Chang**, Weihua Chen, Qianqian Xie, Xuemei Wang*. Seasonal variation of transport pathways and potential source areas at high-IN wet deposition sites in southern China. *Journal of Environmental Sciences* Accepted
- **Ming Chang**#, Jiachen Cao#, Qi Zhang, Weihua Chen, Guotong Wu, Liping Wu, Weiwen Wang, Xuemei Wang*. Improvement of stomatal resistance and photosynthesis mechanism of Noah-MP-WDDM (v1.42) in simulation of NO₂ dry deposition velocity in forests. *Geoscientific Model Development* Accepted
- Weihua Chen, Weiwen Wang, Shiguo Jia, Jingying Mao, Lianming Zheng, Yongkang Wu, Xingteng Zhang, Yutong Dong, Lingbin Kong, Buqing Zhong, **Ming Chang**, Xuemei Wang*, Min Shao. A new index developed for fast diagnostics of meteorological roles in ground-level ozone variations. *Advances in Atmospheric Sciences* Accepted
- Junwen Liu, **Ming Chang**, Zhineng Chen, Sanyuan Zhu, Ping Ding, Fobang Liu, Jun Li, Gan Zhang*. High contribution of South Asian biomass burning to southeastern Tibetan Plateau air: A new evidence from radiocarbon measurement. *Environmental Science & Technology Letters*. 2021, 8(11): 1026-1031. 2021
- Wenxin Zhao, Yu Zhao*, Mingrui Ma, **Ming Chang**, Lei Duan. Long-term variability in base cation, sulfur and nitrogen deposition and critical load exceedance of terrestrial ecosystems in China. *Environmental Pollution*. 2021, 289(11):117974. 2021

- Shiguo Jia, Qi Zhang, Liming Yang, Sayantan Sarkar, Krishnan Padmaja, Jingying Mao, Jian Hang, **Ming Chang**, Yiqiang Zhang, Xuemei Wang, Weihua Chen*. Deposition of ambient particles in human respiratory system based on single particle analysis: a case study in PRD, China. *Environmental Pollution*. 2021, 283(8):117056. 2021
- 刘玉琦, 颜丰华, 郑炼明, **常鸣**, 马明睿, 陈伟华*, 王雪梅*. 基于“质心”迁移的典型城市群氮排放-干沉降输送过程研究. *环境科学学报*. 2021, 41(8):3051-3060 2021
- Yanni Li, Weiwen Wang*, **Ming Chang**, Xuemei Wang. Impacts of urbanization on extreme precipitation in the Guangdong-Hong Kong-Macau Greater Bay Area. *Urban Climate*. 2021, 38(7):100904. 2021
- Yuepeng Xu, Weiwen Wang*, Bingyin Chen, **Ming Chang**, Xuemei Wang. Identification of ventilation corridors using backward trajectory simulations in Beijing. *Sustainable Cities and Society*. 2021, 70(7):102889. 2021
- 邓思欣, 刘永林, 司徒淑婷, 焦灵, **常鸣**, 谢敏, 李婷苑, 安丽娜, 郑炼明, 周雪玲, 邝敏儿. 珠三角典型产业重镇大气VOCs污染特征及来源解析. *中国环境科学*. 2021, 41(7):2993-3003. 2021
- 董宇童, 陈丙寅, 张兴腾, 刘婵芳, 何龙, 何鹏飞, 王伟文, 王雪梅, **常鸣***. 下垫面输入资料对深圳气象场及大气扩散能力模拟的影响. *环境科学学报*. 2021, 41(7):2584-2597. 2021
- 冯倍嘉, 王伟文, 黄志炯, 王雪梅, **常鸣***. 珠三角地区人为热排放演变趋势及不确定性分析. *环境科学学报*. 2021, 41(6):2291-2301. 2021
- Bingyin Chen, Weiwen Wang*, Wei Dai, **Ming Chang**, Xuemei Wang, Yingchang You, Wanxue Zhu, Chungui Liao. Refined urban canopy parameters and their impacts on simulation of urbanization-induced climate change. *Urban Climate*. 2021, 37(5):100847. 2021
- 颜丰华, 陈伟华, **常鸣**, 刘永林, 钟部卿, 毛敬英, 杨士士, 王雪梅*, 刘婵芳*. 珠江三角洲大气光化学氧化剂(O_X)与 $PM_{2.5}$ 复合超标污染特征及影响因素. *环境科学*. 2021, 42(4):7286 2021
- 沈傲, 周慧娴, 樊琦*, 田春艳, **常鸣**, 王雪梅. 珠三角地区冬季硫、氮干沉降的来源解析. *中国环境科学*. 2020, 40(12):5142-5151 2020

- **Ming Chang**#, Shengjie Zhu#, Jiachen Cao, Bingyin Chen, Qi Zhang, Weihua Chen, Shiguo Jia, Krishnan Padmaja, Xuemei Wang*. Improvement and impacts of forest canopy parameters on Noah-MP land surface model from UAV-based photogrammetry. Remote Sensing. 2020, 12(24):4120. 2020
- Jiachen Cao, Xuemei Wang, Hui Zhao, Mingrui Ma, **Ming Chang***. Evaluating the effects of surface O_3 on yield and economic losses for rice in Southern China. Environmental Pollution. 2020, 267(12):115694. 2020
- Fenghua Yan#, Weihua Chen#, Shiguo Jia, Buqing Zhong, Liming Yang, Jingying Mao, **Ming Chang**, Min Shao, Bin Yuan, Suping Situ, Xinming Wang, Duohong Chen, Xuemei Wang*. Stabilization for the secondary species contribution to PM_{2.5} in the Pearl River Delta (PRD) over the past decade, China: A meta-analysis. Atmospheric Environment. 2020, 242(12):117817. 2020
- 杨士士, 王伟文*, 常鸣, 王雪梅. 北京市潜在风道的数值模拟与综合识别. 地球信息科学学报. 2020, 22(10):1996-2009. 2020
- Lianming Zheng#, Weihua Chen#, Shiguo Jia, Luolin Wu, Buqing Zhong, Wenhui Liao, **Ming Chang**, Weiwen Wang*, Xuemei Wang*. Temporal and spatial patterns of nitrogen wet deposition in different weather types in the Pearl River Delta (PRD), China. Science of the Total Environment. 2020, 740(10):139936. 2020
- Weiwen Wang*, Tushi Yang, Yanni Li, Yuepeng Xu, **Ming Chang**, Xuemei Wang*. Identification of pedestrian-level ventilation corridors in downtown Beijing using large-eddy simulations. Building and Environment. 2020, 182(9):107169. 2020
- Shiguo Jia#, Weihua Chen#, Qi Zhang, Krishnan Padmaja, Jingying Mao, Buqing Zhong, Minjuan Huang, Qi Fan, Jinpu Zhang, **Ming Chang**, Liming Yang*, Xuemei Wang*. A quantitative analysis of the driving factors affecting seasonal variation of aerosol pH in Guangzhou, China. Science of the Total Environment. 2020, 725(7):138228. 2020
- 胡泽超, 钟部卿, 陈伟华, 刘玉琦, 王雪梅*, 常鸣*. 陆面模式Noah-MP模拟地表热通量的物理过程不确定性分析. 环境科学学报. 2020, 40(6):2007-2018. 2020

- **Ming Chang**, Jiachen Cao, Mingrui Ma, Yimou Liu, Yuqi Liu, Weihua Chen, Qi Fan, Wenhui Liao, Shiguo Jia, Xuemei Wang*. Dry deposition of reactive nitrogen to different ecosystems across eastern China: a comparison of three community models. *Science of the Total Environment*. 2020, 720(6):137458. 2020
- Jiongming Pang, Xuemei Wang*, Min Shao, Weihua Chen, **Ming Chang**. Aerosol optical depth assimilation for a modal aerosol model: Implementation and application in AOD forecasts over East Asia. *Science of the Total Environment*. 2020, 719(6):137430. 2020
- Mingrui Ma, Weihua Chen, Shiguo Jia, **Ming Chang***, Buqing Zhong, Xuemei Wang*. A new method for quantification of regional nitrogen emission - deposition transmission in China. *Atmospheric Environment*. 2020, 227(4):117401. 2020
- Juncheng Guo, Shengzhen Zhou*, Xi Sun, Minjuan Huang, Hanying Dong, **Ming Chang**, Qi Fan, Shaojia Fan, Xuemei Wang. The regional nature of nitrate-dominant haze pollution during autumn over the Pearl River Delta area. *Atmospheric and Oceanic Science Letters*. 2020, 13(3):252-259. 2020
- **Ming Chang***, Weihua Chen, Sixin Deng, Xuemei Wang, Shengzhen Zhou. Are typhoon and marine eutrophication the possible missing sources of high dissolved organic nitrogen in wet deposition? *Atmospheric and Oceanic Science Letters*. 2020, 13(3): 182-187. 2020
- **Ming Chang**, Wenhui Liao*, Xuemei Wang*, Qi Zhang, Weihua Chen, Zhiyong Wu, Zechao Hu. An optimal ensemble of the Noah-MP land surface model for simulating surface heat fluxes over a typical subtropical forest in South China. *Agricultural and Forest Meteorology*. 2020, 281(2):107815. 2020
- Luolin Wu, **Ming Chang**, Xuemei Wang*, Jian Hang, Jinpu Zhang, Liqing Wu, Min Shao. Development of a real-time on-road emission (ROE v1.0) model for street-scale air quality modeling based on dynamic traffic big data. *Geoscientific Model Development*. 2020, 13(1):23-40. 2020
- Jianing Dai, Xuemei Wang*, Wei Dai, **Ming Chang**. The impact of inhomogeneous urban canopy parameters on meteorological conditions and implication for air quality in the Pearl River Delta region. *Urban Climate*. 2019, 29(9):100494. 2019

- 耿一超, 田春艳, 陈晓阳, 申冲, 王雪梅, **常鸣**, 王明洁, 陈训来, 樊琦*. 珠江三角洲秋季臭氧干沉降特征的数值模拟. 中国环境科学. 2019, 39(4):1345-1354. 2019
- Lyumeng Ye#, Minjuan Huang#, Buqing Zhong, Xuemei Wang*, Qiulan Tu, Haoran Sun, Chao Wang, Luolin Wu, **Ming Chang**. Wet and dry deposition fluxes of heavy metals in Pearl River Delta Region (China): Characteristics, ecological risk assessment, and source apportionment. Journal of Environmental Sciences. 2018, 70(8):106-123. 2018
- Shengzhen Zhou, Perry K. Davy, Minjuan Huang, Jingbo Duan, Xuemei Wang*, Qi Fan, **Ming Chang**, Yiming Liu, Weihua Chen, Shanju Xie, Travis Ancelet, William J. Trompetter. High-resolution sampling and analysis of ambient particulate matter in the Pearl River Delta region of southern China: source apportionment and health risk implications. Atmospheric Chemistry & Physics. 2018, 18(3):2049-2064. 2018
- Junwen Liu, Ping Ding, Zheng Zong, Jun Li*, Chongguo Tian, Weihua Chen, **Ming Chang**, Gary Salazar, Chengde Shen, Zhineng Cheng, Yingjun Chen, Xuemei Wang, Sönke Szidat, Gan Zhang. Evidence of rural and suburban sources of urban haze formation in China: A case study from the Pearl River Delta region. Journal of Geophysical Research: Atmospheres. 2018, 123(9):4712-4726. 2018
- Weihua Chen, Alex B Guenther*, Xuemei Wang*, Youhua Chen, Dasa Gu, **Ming Chang**, Shengzhen Zhou, Luolin Wu, Yiqiang Zhang. Regional to global biogenic isoprene emission responses to changes in vegetation from 2000 to 2015. Journal of Geophysical Research: Atmospheres. 2018, 123(7):3757-3771. 2018
- 吴洛林, 周柳艺, 王雪梅*, 陈伟华, 戴佳宁, 沙琛源, **常鸣**. 肇庆市 $PM_{2.5}$ 重污染天气形势及冬季典型污染过程输送特征研究. 热带气象学报. 33(5):782-792. 2017
- Qi Zhang, **Ming Chang***, Shengzhen Zhou, Weihua Chen, Xuemei Wang*, Wenhui Liao, Jianing Dai, Zhiyong Wu. Evaluate dry deposition velocity of the nitrogen oxides using Noah-MP physics ensemble simulations for the Dinghushan Forest, Southern China. Asia-Pacific Journal of Atmospheric Sciences. 2017, 53(4):519-536. 2017
- 张琪, **常鸣**, 王雪梅*. 我国氮沉降观测方法进展及其在珠三角的应用. 中国环境科学. 2017, 37(12):4401-4416. 2017

- 周密, 常鸣, 赖安琪, 樊琦*, 王雪梅, 李郇, 王明洁, 陈训来. 未来土地利用类型对珠江三角洲气象场的影响. 中国环境科学. 2017, 37(8):2896-2904. 2017
- Lyumeng Ye, Xuemei Wang*, Shaofen Fan, Weihua Chen, **Ming Chang**, Shengzhen Zhou, Zhiyong Wu, Qi Fan. Photochemical indicators of ozone sensitivity: application in the Pearl River Delta, China. *Frontiers of Environmental Science & Engineering*. 2016, 10(6):15. 2016
- 叶绿萌, 樊少芬, 常鸣, 司徒淑婷, 王雪梅*. 珠三角地区秋季臭氧生成敏感性时空变化模拟研究. 南京大学学报(自然科学版). 2016, 52(6):977-988. 2016
- Shengzhen Zhou, Perry K Davy, Xuemei Wang*, Jason Blake Cohen, Jiaquan Liang, Minjuan Huang, Qi Fan, Weihua Chen, **Ming Chang**, Travis Ancelet, William J Trompeter. High time-resolved elemental components in fine and coarse particles in the Pearl River Delta region of Southern China: Dynamic variations and effects of meteorology. *Science of The Total Environment*. 2016, 572:634-648. 2016
- Anqi Lai, Yiming Liu, Xiaoyang Chen, **Ming Chang**, Qi Fan*, Pakwai Chan, Xuemei Wang, Wei Dai. Impact of Land-Use Change on Atmospheric Environment Using Refined Land Surface Properties in the Pearl River Delta, China. *Advances in Meteorology*. 2016, 3830592:15. 2016
- Weihua Chen, Xuemei Wang, Jason Blake Cohen, Shengzhen Zhou, Zhisheng Zhang, **Ming Chang**, Chuen-Yu Chan. Properties of aerosols and formation mechanisms over southern China during the monsoon season. *Atmospheric Chemistry & Physics*. 2016, 16:20. 2016
- Weihua Chen, Xuemei Wang, Shengzhen Zhou, Jason Blake Cohen, Jinpu Zhang, Yu Wang, **Ming Chang**, Yanjun Zeng, Yexin Liu, Zhenhao Ling, Guixiong Liang, Xiaonuan Qiu. Chemical composition of $PM_{2.5}$ and its impact on visibility in Guangzhou, Southern China. *Aerosol and Air Quality Research*. 2016, 16:2349-2361. 2016
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研究技能

- ▶ 陆面模式: Noah, Noah-MP, SSiB
- ▶ 大气环境模式: CALPUFF, EMEP, Flexpart, HYSPLIT, WRF/WRF-Chem
- ▶ 地理信息系统: ArcGIS, GDAL, GlobalMapper, QGIS
- ▶ 编程语言: C-Shell, Fortran, Matlab, NCL, Python
- ▶ 办公软件: DokuWiki, \LaTeX , Markdown, Microsoft Office
- ▶ 研究工具: 计算集群, 无人机, 激光雷达, 单片机, 3D打印机