导师简介

<table>
<tr><td>姓名</td><td>王翠霞</td><td>性别</td><td>女</td><td>出生年月</td><td>1987.12</td><td rowspan="3">  </td></tr>
<tr><td>职称</td><td>副教授</td><td>民族</td><td>汉</td><td>籍　贯</td><td>河南鹤壁</td></tr>
<tr><td>电子邮箱</td><td colspan="3">cuixia.wang@outlook.com</td><td>最终学位</td><td>工学博士</td></tr>
<tr><td>研究方向</td><td colspan="5">高聚物材料的物理力学性能、改性和应用，水输运微观形态和机理，纳米材料的动力学特性和纳米器件等</td><td></td></tr>
<tr><td>学术头衔/兼职</td><td colspan="6">中国岩石力学与工程学会极地岩土力学与工程专业委员会委员、中国土工合成材料工程协会青年工作委员会委员、大坝工程学会混凝土与岩石断裂力学专委会委员、中国水利学会会员、中国土木工程学会会员等</td></tr>
<tr><td>主要学习、科研和工作经历</td><td colspan="6">2004.09-2008.06 西北农林科技大学 水利与建筑工程学院 城市规划 工学学士
2008.09-2011.06 西北农林科技大学 水利与建筑工程学院 结构工程 工学硕士
2012.05-2018.06 德国魏玛包豪斯大学 结构力学研究所 结构工程 工学博士
2018.06-2019.08 德国魏玛包豪斯大学 助理研究员
2019.09-2021.06 郑州大学水利科学与工程学院讲师
2021.07 至今 郑州大学水利与交通学院、黄河实验室（郑州大学）副教授</td></tr>
<tr><td>代表性科研成果</td><td colspan="6">一、科研项目
[1] 国家自然科学基金青年项目：非水反应类高聚物注浆材料抗渗性能的多尺度试验与理论计算研究，主持；
[2] 中国博士后特别资助项目：高水压和超高水压环境下高聚物注浆材料渗透抑制机理及其多尺度理论与试验研究，主持；
[3] 河南省高等学校重点科研项目：发泡高聚物注浆材料阻水性能研究，主持；
[4] 水利部旱区生态水文与水安全重点实验室开放基金：旱区水利工程渗漏高聚物注浆修复机理研究，主持；
[5] 国家自然科学基金面上项目：多因素耦合作用下混凝土排水管道紫外光固化修复材料与结构的全过程工作性态研究，参与；
[6] 河南省自然科学基金重点项目：紫外光固化复合材料性能提升及其修复排水管道理论与技术研究，参与；
[7] 河南省科技厅科技攻关项目：高聚物注浆材料成型稳定性的试验与模拟研究，参与。</td></tr>
</table>

二、奖励

[1]河南省教育厅科技成果奖优秀科技论文奖一等奖；

[2]华维杯第二届全国大学生农业水利工程及相关专业创新设计大赛一等奖；

[3]国家级大学生创新创业项目立项；

[4]MathorCup 高校数学建模挑战赛二等奖

[5]亚太地区大学生数学建模竞赛（APMCM）二等奖；

[6]Interdisciplinary Contest In Modeling Honorable Mention。

三、论文论著（部分）

[1]**Cuixia Wang**, Longwei Guo, Yangyang Xia, Chao Zhang*, Xinxin Sang, Chuanwen Xu, Gang Zhu, Haibo Ji, Peng Zhao, Hongyuan Fang*, Zhuwei Peng, Xiaoguang Zhang. Flexural performance and damage evolution of multiple fiberglass-reinforced UV-CIPP composite materials-- a view from mechanics and energy release. Journal of Materials Research and Technology, 2024, 29, 3317–3339.

[2]Wang Pan, **Cuixia Wang***, Chao Zhang*, Yongshen Wu, Fuming Wang, Hongyuan Fang. Compression fatigue and self-heating effect of foamed polyurethane grouting materials for roadbed trenchless rehabilitation. Journal of Materials Research and Technology, 2023, 27, 4521-4532.

[3]Wang Pan, Yanbo Han, Zhijie Wang*, **Cuixia Wang***, Chao Zhang*, Pengjia Zhu, Hongyuan Fang, Fuming Wang, Zengni Qin. Degradation mechanisms of polyurethane grouting materials under quasi-static and cyclic compression loading: density and size effects. Construction and Building Materials, 2023, 408, 133795.

[4]张超,潘旺,方宏远,**王翠霞***,王复明. 高聚物注浆材料压缩疲劳损伤演化与寿命预测. 中国公路学报, 2023, 36(10), 64-74

[5]Yongshen Wu, Chao Zhang*, **Cuixia Wang***, Timon Rabczuk, Pengjia Zhu, Peng Zhao, Lei Wang, Xiaoying Zhuang, Juan Zhang, Hongyuan Fang. The micro response mechanisms of foamed polymer rehabilitation material under compression: from a closed cell view. Polymer Testing, 2023, 124, 108082.

[6] Pengyang Li, Yangyang Xia, Chao Zhang*, **Cuixia Wang**, Yu Liu, Hongyuan Fang*, Fuming Wang. Mechanical and piezoresistive properties of multi-walled carbon nanotube reinforced epoxy matrix composites for pipeline monitoring. Journal of Materials Research and Technology, 2024, 28, 2127–2137.

[7] Yangyang Xia, Chao Zhang*, **Cuixia Wang**, Hongjin Liu, Xinxin Sang, Ren Liu, Peng Zhao, Guanfeng An, Hongyuan Fang*, Mingsheng Shi, Bin Li, Yiming Yuan, Bokai Liu. Prediction of bending strength of glass fiber reinforced methacrylate-based pipeline UV-CIPP rehabilitation materials based on machine learning. Tunnelling and Underground Space Technology incorporating Trenchless Technology Research, 2023, 140, 105319.

[8] 夏洋洋, 方宏远, 张超*, **王翠霞**, 石明生. 玻纤增强甲基丙烯酸酯基 UV-CIPP 修复材料抗弯性能及失效分析. 材料导报, 2024, (03): 1-31 （封面文章）

[9] Wang Pan, Chao Zhang*, **Cuixia Wang**, Hongyuan Fang*, Fuming Wang, Zengni Qin, Juan Zhang, Lei Wang. Compressive fatigue resistance and related microscopic mechanisms in foamed polyurethane grouting materials for roadbed rehabilitation. International Journal of Fatigue, 2023, 171, 107593.

[10] 张超, 潘旺, 方宏远, 王娟, **王翠霞**, 杜明瑞, 赵鹏, 王磊, 王复明. 聚氨酯泡沫注浆修复材料泡孔结构特征及抗压性能研究进展. 材料导报, 2024, 38(3): 22070007.

[11] Yongshen Wu, Chao Zhang*, Cuixia Wang, Jing Wan, Ning Wei, Chunhua Zhu, Hongyuan Fang*, Zhihui Zou. Miro-mechanical properties of foamed polymer rehabilitation material: A molecular dynamics study, Polymer, 2022, 263, 125480

[12] Lingxiu Yuan, Chao Zhang*, **Cuixia Wang**, Ning Wei, Jing Wan, Chunhua Zhu, Hongyuan Fang*, Mingsheng Shi. Effect of the crosslinking degree on the microstructure and thermomechanical properties of a polymer grouting material. Polymer, 2022, 259, 125342

[13] Yangyang Xia, Mingsheng Shi, Chao Zhang*, **Cuixia Wang**, Xinxin Sang, Ren Liu, Peng Zhao, Guanfeng An, Hongyuan Fang*. Analysis of flexural failure mechanism of ultraviolet cured-in-place-pipe materials for buried pipelines rehabilitation based on curing temperature monitoring. Engineering Failure Analysis, 2022, 142, 106763.

[14] Juan Wang, Xun Li, **Cuixia Wang**, Chao Zhang*, Hongyuan Fang*, Yu Deng. Quantitative Analysis of the Representative Volume Element of Polymer Grouting Materials Based on Geometric Homogenization. Construction and Building Materials, 2021, 300, 124223.

[15] Hongyuan Fang, Peng Zhao, Chao Zhang*, Wang Pan*, Zisen Yu, Kun Cai, **Cuixia Wang**, Juan Wang, Mingrui Du, Wei He, Ruitao Zhao, Nan Deng. A cleaner polyurethane elastomer grouting material with high hardening strain for the fundamental rehabilitation: The comprehensive mechanical properties study. Construction and Building Materials, 2022, 318, 125951.

[16] Chao Zhang, Xiaoli Hao, **Cuixia Wang**, Ning Wei and Timon Rabczuk. Thermal conductivity of graphene nanoribbons under shear deformation: A molecular dynamics simulation. Scientific Reports, 2017, 7:41398.

[17] Chao Zhang, Yunhui Zhang, Yangyang Xia*, Hongyuan Fang*, Peng Zhao, **Cuixia Wang**, Bin Li, Yanhui Pan, Zhihui Zou, Timon Rabczuk, Xiaoying Zhuang. Risk assessment and optimization of supporting structure for a new recyclable pipe jacking shaft during excavation process. Process Safety and Environmental Protection, 2023, 172, 211-221.

[18] **Cuixia Wang**, Chao Zhang, Jinwu Jiang, Harold S. Park, Timon Rabczuk. Mechanical Strain Effects on Black Phosphorus Nanoresonators. Nanoscale,2016, 8(2), 901-905.

[19] **Cuixia Wang**, Chao Zhang, Jinwu Jiang, Timon Rabczuk. "The Effects of Vacancy and Oxidation on Black Phosphorus Nanoresonators." Nanotechnology, 2017, 28 (13): 135202.

[20] **Cuixia Wang**, Chao Zhang, Jinwu Jiang, Timon Rabczuk. A Coarse-Grained Simulation for the Folding of Molybdenum Disulphide.

Journal of Physics D: Applied Physics, 2015, 49(2), 025302.

[21] **Cuixia Wang**, Chao Zhang, JW Jiang, N. Wei, H. Park and T. Rabczuk. Self-Assembly of Water Molecules Using Graphene Nanoresonators. RSC Advance 6(112), 2016, 110466-110470 ().

[22] Hongyuan Fang, Peng Zhao, Chao Zhang*, Wang Pan*, Zisen Yu, Kun Cai, **Cuixia Wang**, Juan Wang, Mingrui Du, Wei He, Ruitao Zhao, Nan Deng. A cleaner polyurethane elastomer grouting material with high hardening strain for the fundamental rehabilitation: The comprehensive mechanical properties study. Construction and Building Materials, 2022, 318, 125951.

[23] Juan Wang, Xun Li, **Cuixia Wang**, Chao Zhang*, Hongyuan Fang*, Yu Deng. Quantitative Analysis of the Representative Volume Element of Polymer Grouting Materials Based on Geometric Homogenization. Construction and Building Materials, 2021, 300, 124223.

[24] 梁建，唐亚文，张超*，**王翠霞**，李瑞忠. 混凝土电化学脱盐模拟及其影响因素分析. 水资源与水工程学报, 2021, 32(5).

[25] Bin Sun, Lei Yang, Shun Zhu, Quan Liu, **Cuixia Wang**, Chao Zhang*. Study on the applicability of four flumes in small rectangular channels. Flow Measurement and Instrumentation, 2021, 80, 101967.

[26] Chao Zhang, Xxiaoli Hao, **Cuixia Wang**, Ning Wei, Timon Rabczuk. Thermal conductivity of graphene under shear deformation: A molecular dynamics simulation. Scientific Reports,2017, 7: 41398

[27] Chao Zhang, **Cuixia Wang**, Tom Lahmer, Peng He, Timon Rabczuk. A dynamic XFEM formulation for crack identification. International Journal of Mechanics and Materials in Design, 2016, 12(4), 427-448.

[28] Chao Zhang, **Cuixia Wang**, Timon Rabczuk. Thermal conductivity of single-layer MoS2: a comparative study between 1H and 1T phases, Physica E: Low-dimensional Systems and Nanostructures, 2018, 103, 294-299.

四、专利（部分）

[1] **王翠霞**, 王亚菲, 靳心瑶, 王明军, 张超, 孙斌, 张金萍, 张广毅. 一种具

	有联动转动结构的地下防堵塞装置[P]. 202122927514.X [2] **王翠霞**, 靳心瑶, 王亚菲, 王明军, 张超, 孙斌, 张广毅, 张金萍. 一种用于地下灌溉管道的联动转动结构[P]. 202122927513.5 [3] **王翠霞**，张超，袁灵修，武永深，万京，魏宁，杜明瑞，赵鹏，王磊，石明生.一种基于分子动力学的交联聚氨酯建模方法[P].202210842801.7 [4] 张超，詹铭杰，**王翠霞**，方宏远，夏洋洋，孙康艳，赵鹏，孙斌，张广毅，张金萍.非水反应高聚物注浆材料抗渗性能测试装置[P].202220269208.3 [5] 张超，武永深，**王翠霞**，万京，魏宁，赵鹏，王磊，赵珍珍，常小周，张鸿刚.一种发泡高聚物闭合泡孔分子模型的构建方法[P] 202210927170.9 [6] 张超，潘旺，方宏远，张娟，夏洋洋，秦曾妮，**王翠霞**，赵鹏. 一种高聚物注浆材料疲劳温升特性的测试方法[P]. 中国：202210420711.9，2022.04.21 [7] 张超，王明军，鲁圆圆，**王翠霞**，杨志聪，靳晴晴，王逸卓，米洋洋，孙斌，张金萍. 一种闸门超声波除冰装置[P]. 中国：202111371881.4，2021.11.18 [8] 张超，付一鸣，张福斌，陈红衛，张逍然，秦晓晗，方宏远，**王翠霞**，孙斌，张广毅，张金萍. 一种免切割弧片状 CIPP 光固化模具[P]. 中国：202122696974.6，2021.11.05 [9] 张超，王亚菲，靳心瑶，王明军，**王翠霞**，孙斌，张金萍，张广毅. 一种用于地下灌溉的塑料管道[P].中国：202122927515.4，2021.11.22 [10] 鲁圆圆，张超，杨志聪，王明军，**王翠霞**，孙斌，张广毅，一种超声波智能一体化水库闸门除冰装置 CN216405327U，2022.04.29 [11] 张超、张逍然;付一鸣;张福斌;陈红衛;秦晓晗;方宏远;**王翠霞**;孙斌;张广毅;张金萍，光固化实验箱 CN307137418S，2022.03.01

注：可加页