王飞简介

<table>
<tr><td>姓名</td><td>王飞</td><td>性别</td><td>男</td><td>出生年月</td><td>1988.8</td><td rowspan="3">  </td></tr>
<tr><td>职称</td><td>副研究员</td><td>民族</td><td>汉族</td><td>籍　　贯</td><td>郑州</td></tr>
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<tr><td colspan="2">研究方向</td><td colspan="5">岩体力学、地下工程灾变机理、水工混凝土材料性能</td></tr>
<tr><td>主要学习、科研和工作经历</td><td colspan="6">一、教育背景
2016.09–2019.12 中南大学 资源与安全工程学院，岩土工程， 博士
2018.12–2019.12 Nanyang Technological University， CEE 联合培养
2012.09–2015.06 中南大学 资源与安全工程学院， 矿业工程， 硕士
2008.09–2012.06 河南理工大学 能源学院， 采矿工程， 学士
二、科研和工作经历
2025.01-至今 郑州大学，副研究员
2022.01-2024.12 郑州大学，助理研究员
2020.01-2021.12 深圳大学，博士后
2015.09-2016.08 河南工程学院，教师</td></tr>
<tr><td>代表科研成果</td><td colspan="6">一、主持科研项目
[1] 国家自然科学基金面上项目（52474110），深部地热开采储层裂隙剪切-渗流耦合增透机理及致灾能量预测，2025-01至2028-12，主持，在研
[2] 河南省优秀青年科学基金项目，水压作用下干热岩裂隙剪切滑移诱发机制及增透模型研究，2025-01至2026-12，主持，在研
[3] 深部煤矿采动响应与灾害防控国家重点实验室开放基金项目（SKLMRDPC23KF09），断层和卸荷双重诱导下围岩的力学行为及巷道稳定性研究，2024-04至2026-03，主持，在研
[4] 水利工程智能建设与运维全国重点实验室开放基金（HESS-2508），数字孪生驱动寒区混凝土坝长期服役性能提升研究，2025-06至2028-06，主持，在研
[5] 河南省博士后科研资助项目，冻融-载荷耦合下纤维增强地聚合物混凝土物理力学性能及损伤机理研究，2024-01至2025-6，结题，主持
[6] 2024 年度河南省高等学校重点科研项目（24A570008），深部地热岩体原位孔隙结构及压裂渗透特性研究,2024-01至2025-12，结题，主持
[7] 中国博士后科学基金会面上项目(2020M682882)，温压效应下深部饱水岩体断裂破坏机理及渗流行为研究，2020-10至2021-12，结题，主持
[8] 广东省基础与应用基础研究基金委员会(2020A1515110468)，区域联合基金-青年基金项目，水热力耦合下地热岩体渗透特性及压裂机理的温压效应研究，</td></tr>
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2020-10至2021-12，结题，主持

[9] 横向项目（20240226A），邻近铁路营业线桥梁线性监测、转体称重、变形监测系列技术研究，2024.04至2026.12，主持，在研

[10] 横向项目（20250024A），特长小断面高瓦斯水工隧洞灾变机理及施工关键技术研究，2025.03至2026.12，主持，在研

二、代表性论文（发表论文30余篇，其中以第一/通讯在SCI/EI发表论文20余篇）

[1] Tao Dong, Weiming Gong, Guoliang Dai, Xu Han, Yixian Wang, **Fei Wang***. Strain concentration damage model based on digital image processing and its reliability verification. Theoretical and Applied Fracture Mechanics 141(2026)105272.

[2] Peng Zhang, Zheng Qin, Zhen Gao, **Fei Wang***, Canhua Lai. Research progress on impact resistance of fiber-reinforced concrete–A review. Journal of Building Engineering 112 (2025) 113982.

[3] **Fei Wang**, Heping Xie, Cunbao Li, Minghui Li, Xiting Long, Ke Shan, Zhihe Wang*. Hydraulic properties of stressed granite fractures with heat-induced void alteration. Engineering Geology, 2024(333):107476.

[4] Tao Dong, Wenbo Zhu, Weiming Gong, **Fei Wang***, Yixian Wang, Jianxiong Jiang. Crack coalescence prediction and load-bearing mechanism of defective specimen based on computer vision recognition model. Engineering Fracture Mechanics 308 (2024) 110373.

[5] Tao Dong, Wenbo Zhu, Weiming Gong, Gan Feng, **Fei Wang***, Jianxiong Jiang. Quantitative calculation of rock strain concentration and corresponding damage evolution analysis. Theoretical and Applied Fracture Mechanics 133 (2024) 104615.

[6] Peng Zhang, Junyao Ding, Jinjun Guo, **Fei Wang***. Fractal Analysis of Cement-Based Composite Microstructure and Its Application in Evaluation of Macroscopic Performance of Cement-Based Composites: A Review. Fractal Fract. 2024, 8, 304. https://doi.org/10.3390/fractalfract8060304

[7] Peng Zhang, Cong Wang, Zhen Gao, Zhihe Wang, Changtai Zhou, **Fei Wang***. Combined efects of high temperature and lithology on the tensile mechanical damage and fracture surface morphology of reservoir rocks. Bulletin of Engineering Geology and the Environment, (2024) 83:226.

[8] **Fei Wang**, Heping Xie, Changtai Zhou, Zhihe Wang, Cunbao Li. Combined effects of fault geometry and roadway cross-section shape on the collapse behaviors of twin roadways: An experimental investigation, Tunnelling and Underground Space Technology 137 (2023) 105106.

[9] **Fei Wang**, Peng Zhang, Kaihui Li, Cong Wang, Pengfei Cui. Mechanical and fracture characteristics of single tunnel under the induced effect of a key joint. Archives of Civil and Mechanical Engineering, (2023) 23:206.

[10] Tao Dong, Ju Wang, Weiming Gong*, **Fei Wang***, Hongguang Lin, Wengbo Zhu. Crack coalescence mechanism and crack type determination model based on the analysis of specimen apparent strain field data, Rock Mechanics and Rock Engineering, 2024, 57(5):3681-3705.

[11] Peng Zhang, Yaowen Sun, Zhenhui Guo, Jian Hong, **Fei Wang***. Strengthening mechanism of polyvinyl alcohol fibers on mechanical properties of geopolymer concrete subjected to a wet-hot-salt environment, Polymer Testing 127 (2023) 108199.

[12] Peng Zhang, Cong Wang, Zhenhui Guo, Jian Hong, **Fei Wang***. Effect of polyvinyl alcohol fibers on mechanical properties of nano-SiO2-reinforced geopolymer composites under a complex environment. Nanotechnology Reviews 2023; 12: 20230142.

[13] Peng Zhang, Cong Wang, **Fei Wang***, Peng Yuan. Influence of sodium silicate to precursor ratio on mechanical properties and durability of the metakaolin/fly ash alkali-activated sustainable mortar using manufactured sand. Reviews on Advanced Materials Science (2023) 62: 20220330.

[14] Tao Dong, Ping Cao, **Fei Wang***, Ziyang Zhang, Feng Xiao. Strain field evolution and crack coalescence mechanism of composite strength rock-like specimens with sawtooth interface. Theoretical and Applied Fracture Mechanics. 126 (2023) 103947

[15] Zhizhen Liu, Ping Cao, Qingxiong Zhao, Rihong Cao, **Fei Wang***. Deformation and damage properties of rock-like materials subjected to multi-level loading-unloading cycles. Journal of Rock Mechanics and Geotechnical Engineering 15 (2023) 1768-1776.

[16] Changtai Zhou , Heping Xie, Jianbo Zhu, Zhihe Wang, Cunbao Li, **Fei Wang***. Mechanical and Fracture Behaviors of Brittle Material with a Circular Inclusion: Insight from Infilling Composition. Rock Mechanics and Rock Engineering. (2022) 55:3331-3352

[17] Zhizhen Liu, Ping Cao, Kaihui Li, **Fei Wang***, Tao Dong. Fracture analysis of central-flawed rock-like specimens under the influence of coplanar or non-coplanar edge flaws. Bulletin of Engineering Geology and the Environment 2022, 81, 61.

[18] Peng Zhang, Shiyao Wei, Yuanxun Zheng, **Fei Wang***, Shaowei Hu. Effect of Single and Synergistic Reinforcement of PVA Fiber and Nano-SiO_2 on Workability and Compressive Strength of Geopolymer Composites. Polymers, 2022, 14, 3765.

[19] **Fei Wang**, Ping Cao, Yixian Wang, Ruiqing Hao, Jingjing Meng, Junlong Shang*. Combined effects of cyclic load and temperature fluctuation on the mechanical behavior of porous sandstones. Engineering Geology, 2020, 266, 105466.

[20] **Fei Wang**, Ping Cao, Changtai Zhou, Cunbao Li, Jiadong Qiu, Zhizhen Liu*. 2020. Dynamic compression mechanical behavior and damage model of singly-jointed

	samples. Geomechanics and Geophysics for Geo-Energy and Geo-Resources 6, 71. [21] **Fei Wang**, Ping Cao, Rihong Cao*, Xinguang Xiong, Ji Hao. 2019. The influence of temperature and time on water-rock interactions based on the morphology of rock joint surfaces. Bulletin of Engineering Geology and the Environment 78, 3385-3394. [22] **王飞**, 高明忠, 邱冠豪, 汪亦显, 周昌台, 王之禾.初始损伤–载荷–冻融作用下红砂岩的孔隙结构及力学特性.工程科学与技术, 2022,54(6):194–203. **三、授权专利** [1] **王飞**，张鹏，张甲豪，杨皓凯，陈凯基，邓锐博，陈灿灿，程煜峰，魏士程.一种冻融-荷载耦合作用圆柱混凝土试样的冻胀力和变形实时测试装置。专利号:ZL 202411754066.X，授权日:2025-09-26.（发明专利） **四、成果奖励** [1] 2025 年中国岩石力学与工程学会科技进步奖二等奖（排名 4/10） [2] 2025 年河南省教育厅科技成果科技进步一等奖（排名 1/10）