简介

<table>
<tr><td>姓名</td><td>翟科杰</td><td>性别</td><td>男</td><td>出生年月</td><td>1991年9月</td><td rowspan="3">  </td></tr>
<tr><td>职称</td><td>直聘研究员</td><td>民族</td><td>汉</td><td>籍　贯</td><td>河南开封</td></tr>
<tr><td colspan="2">电子邮箱</td><td colspan="2">kejiezhai@zzu.edu.cn</td><td>最终学位</td><td>博士</td></tr>
<tr><td>研究方向</td><td colspan="6">地下工程灾变防护、FRP加固</td></tr>
<tr><td>主要学习、科研和工作经历</td><td colspan="6">2022.12至今 郑州大学 黄河实验室（郑州大学） 直聘研究员
2018-2022 中山大学 土木工程 博士 导师：王复明 院士
2021-2022 Queen's University 岩土工程 导师：Ian Moore 院士（加拿大）
2015-2018 福州大学 防灾减灾及防护工程 硕士
2011-2015 天津城建大学 土木工程 学士</td></tr>
<tr><td>代表性科研成果与科研奖励</td><td colspan="6">1. Zhai K, Wang F, Fang H, Ni P, Ji X, Guo C, Hu S. Serviceability assessment of prestressed concrete cylinder pipes with broken wires: analytical solution and numerical simulation. Tunnelling and Underground Space Technology, 2022. (SCI, TOP, 中科院一区)
2. Zhai K, Fang H, Guo C, Ni P, Wu H, Wang F. Full-scale experiment of prestressed concrete cylinder pipe with broken wires strengthened by prestressed CFRP. Tunnelling and Underground Space Technology, 2021. (SCI, TOP, 中科院一区)
3. Zhai K, Fang H, Li B, et al. Failure Experiment on CFRP-Strengthened Prestressed Concrete Cylinder Pipe with Broken Wires. Tunnelling and Underground Space Technology, 2023. (SCI, TOP, 中科院一区)
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7. Zhai K, Guo C, Fang H, Li B, Hu Q, Ma B, Wang F. Stress distribution and mechanical performance of PCCP with broken wire. Engineering Structures, 2021. (SCI, TOP,中科院一区)
8. Zhai K, Fang H, Guo C, Fu B, Ni P, Ma H, He H, Wang F. Mechanical properties of CFRP-strengthened prestressed concrete cylinder pipe based on multi-field coupling. Thin-Walled Structures, 2021, 162: 107629.
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10. Zhai K, Fang H, Fu B, Wang F, Hu B. Using Externally Bonded CFRP to Repair a PCCP with Broken Wires under Combined Loads. International Journal of Polymer Science, 2019: 1-12.
11. Wu H, Zhai K, Fang H, Wang F, Yu X, Li B. Bell-and-spigot joints mechanical properties study of PCCP under the uneven settlement of foundation: simulation and full-scale test. Structures, 2022.
12. Li B, Fang H, Zhai K, Yang K, Zhang X, Wang Y. Mechanical behavior of concrete pipes with erosion voids and the effectiveness evaluation of the polyurethane grouting. Tunnelling and Underground Space Technology, 2022.
13. Hu B, Fang H, Wang F, Zhai K. Full-scale test and numerical simulation study on load-carrying capacity of prestressed concrete cylinder pipe (PCCP) with broken wires under internal water pressure. Engineering Failure Analysis, 2019, 104: 513-530.</td></tr>
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	14. Li B, Fang H, Zhang X, Yang K, Dong B, Pang G, **Zhai K**. Prediction model for maximum shear displacement of pipe joints with preexisting defects based on finite element–multiple nonlinear regression method. Structural Concrete, 2022. 15 Li B, Yu W, Xie Y, Fang H, Du X, Wang N, **Zhai K**, Wang D, Chen X, Du M, Sun M, Zhao X. Trenchless rehabilitation of sewage pipelines from the perspective of the whole technology chain: a state-of-the-art review. Tunnelling and Underground Space Technology, 2023. 16. **翟科杰**, 方宏远, 付兵, 王复明, 胡本月, 雷新海. 断丝PCCP管道外贴CFRP修复足尺模型试验研究. 岩土工程学报, 2019,41(S1):157-160. 17. **翟科杰**, 方宏远, 郭成超, 倪芃芃, 付兵, 吴汉英, 李斌. 预应力CFRP加固断丝PCCP的试验与仿真研究. 水利学报. 2021: 1-11. 18. **翟科杰**, 方宏远, 张冲博, 李斌, 薛冰寒, 吴汉英. PCCP管承插口力学性能与失效模式仿真分析. 中国给水排水, 2020, 36(20): 10-18. 19. **翟科杰**, 郭成超, 方宏远, 王钰轲, 杨康建. 基于多场耦合的PCCP管道力学性能研究[J]. 地下空间与工程学报, 2022, 18(04): 1157-1165. 20. **翟科杰**, 方圣恩. 纤维布加固混凝土方柱的改进约束强度模型. 土木与环境工程学报(中英文), 2019, 41(02): 79-85. 专利： 1. 王复明, 方宏远, **翟科杰**, 潘艳辉, 赵鹏. 一种断丝PCCP不停水预应力CFRP与高聚物注浆修复方法. 2. 王复明, 方宏远, **翟科杰**, 潘艳辉, 赵鹏. 一种预应力FRP加固柱形结构的预应力施加装置. 3. 王复明, 方宏远, **翟科杰**, 潘艳辉, 赵鹏. 一种断丝PCCP开挖修复支撑装置. 4. 王复明, 方宏远, **翟科杰**, 潘艳辉, 赵鹏. 不停输外贴纤维布修复PCCP管道的预应力施加装置. 5. 王复明, 方宏远, **翟科杰**, 潘艳辉, 赵鹏. 一种PCCP管道不中断输水修复加固方法.