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博士研究生

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A. 教育经历

米兰理工大学	机械工程	双学位博士研究生, 2021-至今
北京航空航天大学	飞行器设计	博士研究生, 2019-至今
北京航空航天大学	飞行器设计	硕士研究生, 2017-2019（转博）
北京航空航天大学	飞行器设计与工程	工学学士, 2013-2017

B. 研究兴趣

- 结构完整性与飞机结构数字孪生
- 结构健康监测
- 降阶与代理模型

C. 代表性学术成果

期刊文章

1. **Zhou, X.**, Sbarufatti, C.*, Giglio, M., Dong, L.* & Atluri, S. N.. (2023). Copula-based Collaborative Multi-Structure Damage Diagnosis and Prognosis for Fleet Maintenance Digital Twins. **AIAA Journal**. https://doi.org/10.2514/1.J063105. (已录用)
2. Zhao, F., **Zhou, X.***, Wang, C., Dong, L.*, & Atluri, S. N. (2023), Setting Adaptive Inspection Intervals in Helicopter Components, Based on a Digital-Twin. **AIAA Journal**. https://doi.org/10.2514/1.J062222 (通讯作者)
3. **Zhou, X.**, Sbarufatti, C.*, Giglio, M., & Dong, L.* (2023), A Fuzzy-set-based Joint Distribution Adaptation Method for Regression and its Application to Online Damage Quantification of a Structural Digital Twin. **Mechanical Systems and Signal Processing**, 191, 110164. https://doi.org/10.1016/j.ymssp.2023.110164.
4. **Zhou, X.**, Oboe, D., Poloni, D., Sbarufatti, C.*, & Dong, L.*, Giglio, M. (2023). Cluster-based Joint Distribution Adaptation Method for Debonding Quantification in Composite Structures. **AIAA Journal**, 61(2), 831–842. https://doi.org/10.2514/1.J062417
5. He, S., Wang, C., **Zhou, X.** *, Dong, L. *, & Atluri, S. N. (2022). Weakly Singular Symmetric Galerkin Boundary Element Method for Fracture Analysis of Three-Dimensional Structures Considering Rotational Inertia and Gravitational Forces. **Computer Modeling in Engineering & Sciences**, 131(3), 1857–1882. https://doi.org/10.32604/cmes.2022.019160 (通讯作者)
6. **Zhou, X.**, He, S.*, Dong, L., & Atluri, S. N. (2022). Real-Time Prediction of Probabilistic Crack Growth with a Helicopter Component Digital Twin. **AIAA Journal**, 60(4), 2555–2567. https://doi.org/10.2514/1.J060890
7. 赵福斌, **周轩**, & 董雷霆 (2021). 基于数字孪生的飞机蒙皮裂纹智能检查维修策略. **固体力学学报**, 42(03), 277 – 286. https://doi.org/10.19636/j.cnki.cjsm42-1250/o3.2021.030
8. 董雷霆*, **周轩,** 赵福斌, 贺双新, 卢志远, & 冯建民 (2021). 飞机结构数字孪生关键建模仿真技术. **航空学报**, 42(03), 113-141. https://doi.org/10.7527/S1000-6893.2020.23981 (入选航空学报 2018-2021 年高影响力论文， 2022 年度领跑者 5000—中国精品科技期刊顶尖学术论文（F5000）)

图书章节

1. **Zhou, X.**, Dong, L. (2023). Digital Twin driven damage diagnosis and prognosis of complex aircraft structures. **Handbook of Digital Twins**, CRC Press. (待出版)

发明专利

1. 董雷霆, **周轩**, 卢志远 (2022). 一种基于领域自适应的在线结构损伤量化方法, CN 202210493415.1. (已受理)
2. 董雷霆, **周轩**, 赵福斌 (2020). 基于数字孪生的直升机动部件寿命管理方法、设备、介质, CN 202010388598.1. (已授权)

会议报告

1. **Zhou, X.**, Dziendzikowski, M., Dragan, K., Dong, L., Giglio, M., & Sbarufatti, C. (2023). Generating High-Resolution Flight Parameters in Structural Digital Twins using Deep Learning-based Upsampling. 2023 Prognostics and Health Management Conference (PHM Paris 2023), Paris, France.
2. **Zhou, X.**, Sbarufatti, C.*, Giglio, M., & Dong, L.* (2023). Copula-based Multi-structure Damage Co-diagnosis and Prognosis for the Fleet Maintenance Digital Twin. 29th International Conference on Computational & Experimental Engineering and Sciences (ICCES2023), Shenzhen, China. (**Best Student Paper Award)**
3. **周轩**, 董雷霆* (2020), 直升机部件的飞机结构数字孪生案例研究, 第二十届全国疲劳断裂会议 (NCFF-20), 重庆, 中国.
4. **周轩**, 董雷霆* (2019), Machine Learning based Crack Growth Predictions: Application to a Helicopter Component, 第 6 届亚太国际工程计算方法学术会议 (ICOME-19), 大连, 中国.

D. 部分荣誉与奖励

- **ICCES Best Student Paper Award (2023)**
- **北航博士生卓越学术基金 (2022-2023)**
- 北航优秀研究生 (2021, 2022)
- 北航优秀毕业生 (2017)