

王英俊

基本资料

出生年月：1984.8

政治面貌：中共党员

行政职务：院长助理

联系方式：电话：17728101707

Email: wangyj84@scut.edu.cn

通讯地址：广州市天河区五山路 381 号聚合物新型成型装备国家工程研究中心



教育和科研经历

- 2022.9—至今, 华南理工大学 机械与汽车工程学院 教授
- 2016.9—2022.8, 华南理工大学 机械与汽车工程学院 副教授
- 2015.8—2016.9, 麦吉尔大学 机械工程系 博士后
合作导师 Damiano Pasini (点阵材料专家, 加拿大首席科学家)
- 2013.9—2015.7, 加州大学圣地亚哥分校 结构工程系 博士后
合作导师 David J. Benson (LS-DYNA cofounder, ASME fellow, USACM fellow)
- 2009.9—2013.6, 华中科技大学 机械科学与工程学院国家 CAD 中心 博士 机械设计及理论 专业
导师 王启富
- 2007.9—2009.6, 华中科技大学 机械科学与工程学院国家 CAD 中心 硕士 车辆工程 专业
导师 王书亭
- 2003.9—2007.7, 华南理工大学 汽车工程学院 学士 车辆工程 专业

科研项目

从事工业软件、CAD/CAE 技术、结构优化、等几何分析、有限元分析、边界元、CPU/GPU 并行计算、增材制造等研究。主持和参加了以下国家/省部级项目：

- 广东省自然科学基金面上项目，考虑疲劳损伤约束的结构等几何拓扑优化方法研究（项目编号：2025A1515010672），2025-1 至 2027-12，10 万元，在研，主持
- 广东省自然科学基金面上项目，基于等几何的复杂结构设计分析优化一体化方法研究（项目编号：2024A1515011786），2024-1 至 2026-12，15 万元，在研，主持
- “广东特支计划”科技创新青年拔尖人才（合同编号：2021TQ050224），2022-11 至 2025-10，50 万元，主持
- XXX 国防军工项目课题，2021-12 至 2024-11，92.6 万元，主持
- 国家重点研发计划项目课题，优化驱动的设计分析一体化高效数值求解技术（课题编号：2020YFB1708302），2020-11 至 2023-10，148 万元，主持
- 国家自然科学基金面上项目，面向复杂设计域的高效等几何拓扑优化方法（项目编号：52075184），2021-01 至 2024-12，58 万元，主持



- 国家重点研发计划项目，大数据驱动的复杂零件智能加工产线工艺感知与精度控制（项目编号：2018YFB1701200），2019-06 至 2023-05，1410 万元，已结题，参加，子课题/子任务 主持
- 国家自然科学基金青年科学基金“复杂产品模型等几何有限块理论方法及技术研究”（项目编号：51705158），2018-01 至 2020-12，25 万，已结题，主持。
- 广东省自然科学基金面上项目，轻质高性能多孔点阵结构设计 with 优化技术研究（项目编号：2019A1515011783），2019-10 至 2022-09，10 万元，已结题，主持
- 广东省重点领域研发项目课题，生物活性骨修复材料增材制造技术与装备的研究及产业化开发（2020B090924004），2019-11 至 2022-10，280 万元，已结题，参加
- 国家自然科学基金面上项目，基于深度迁移学习的机械系统智能诊断方法研究（项目编号：51875208），2019-01 至 2022-12，65 万元，在研，参加
- 国家自然科学基金面上项目，几何约束条件下连续体结构拓扑与形状统一优化设计方法研究（编号：50975107），2010/01-2012/12，34 万，已结题，参加
- 国家自然科学基金面上项目，基于多领域建模的高速高精度进给系统匹配优化（编号：51275182），2011/10-2015/09，80 万，已结题，参加
- 国家“高档数控机床与基础制造装备”科技重大专项，动梁无滑枕立式车铣复合加工中心。（编号：2010ZX04001-032），2010/01-2011/12，3213 万。已结题，参加
- 美国自然科学基金，“Isogeometric boundary element analysis”（编号：CMMI-1068106），2011/10-2015/09，29.82 万美金，已结题，参加

发表/接收期刊论文

1. **Yingjun Wang**, Shijie Luo, Jinyu Gu*, Yuanfang Zhang. Efficient blocked symmetric compressed sparse column method for finite element analysis. *Frontiers of Mechanical Engineering*, 2025, 20:5. (SCI)
2. **Yingjun Wang***, Xinqing Li, Kai Long, Peng Wei. Open-Source Codes of Topology Optimization: A Summary for Beginners to Start Their Research. *Computer Modeling in Engineering & Sciences*, 2023, 137 (1): 1-34. (SCI, 封面论文)
3. **Yingjun Wang**, Mi Xiao, Zhaohui Xia, Peigen Li, Liang Gao. From Computer-Aided Design (CAD) Toward Human-Aided Design (HAD): An Isogeometric Topology Optimization Approach. *Engineering*, 2023, 22:94-105. (SCI, 封面论文)
4. **Yingjun Wang**, Zhenbiao Guo, Jianghong Yang, Xinqing Li. Multiresolution and multimaterial topology optimization of fail-safe structures under B-spline spaces. *Frontiers of Mechanical Engineering*, 2023, 18(4): 52.
5. **Yingjun Wang**, Zhongyuan Liao, Ming Ye*, Yu Zhang, Weihua Li, Zhaohui Xia*. An efficient isogeometric topology optimization using multilevel mesh, MGCG and local-update strategy. *Advances in Engineering Software*, 2020, 139: 102733. (SCI, ESI 高被引)
6. **Yingjun Wang**, Wei Zheng, Yongfeng Zheng, Daicong Da. A new three-level mesh method to accelerate the structural topology optimization. *Applied Mathematical Modelling*, 2022, 109: 374-400. (SCI)



7. **Yingjun Wang**, Liang Gao*, Jinping Qu, Zhaohui Xia, Xiaowei Deng. Isogeometric analysis based on geometric reconstruction models. *Frontiers of Mechanical Engineering*, 2021, 16(4): 782-797. (SCI)
8. **Yingjun Wang***, Zhenpei Wang, Xiaowei Deng, David J. Benson, Damiano Pasini, Shuting Wang. Introduction to the Special Issue on Recent Developments of Isogeometric Analysis and Its Applications in Structural Optimization. *Computer Modeling in Engineering & Sciences*, 2020, 124 (2): 783-785. (SCI)
9. **Yingjun Wang**, Zhongyuan Liao, Shengyu Shi*, Zhenpei Wang*, Leong Hien Poh. Data-Driven Structural Design Optimization for Petal-Shaped Auxetics Using Isogeometric Analysis. *Computer Modeling in Engineering & Sciences*, 2020, 122(2): 433-458. (SCI)
10. **Yingjun Wang***, Zhen-Pei Wang*, Zhaohui Xia, Leong Hien Poh. Structural Design Optimization Using Isogeometric Analysis: A Comprehensive Review. *Computer Modeling in Engineering and Science*, 2018, 117(3): 455-507. (SCI)
11. **Yingjun Wang**, Sajad Arabnejad, Michael Tanzer, Damiano Pasini*. Hip implant design with three-dimensional porous architecture of optimized graded density. *Journal of Mechanical Design*, 2018, 140(11):111406. (SCI)
12. **Yingjun Wang**, Hang Xu, Damiano Pasini*. Multiscale isogeometric topology optimization for lattice materials. *Computer Methods in Applied Mechanics and Engineering*, 2017, 316:568-585. (SCI)
13. **Yingjun Wang***, David J. Benson. Geometrically constrained isogeometric parameterized level-set based topology optimization via trimmed elements. *Frontiers of Mechanical Engineering*, 2016, 11(4): 328-343. (SCI)
14. **Yingjun Wang**, David J. Benson. Isogeometric analysis for parameterized LSM-based structural topology optimization. *Computational Mechanics*, 2016, 57(1): 19-35. (SCI)
15. **Yingjun Wang**, David J. Benson, Attila P. Nagy. A multi-patch nonsingular isogeometric boundary element method using trimmed elements. *Computational Mechanics*, 2015, 56:173-191. (SCI)
16. **Yingjun Wang**, Xiaowei Deng, Qifu Wang, Zhaohui Xia, Hua Xu. Boundary condition related mixed boundary element and its application in FMBEM for 3D elastostatic problem. *International Journal of Computational Method*, 2015, 12(5): 1550029. (SCI)
17. **Yingjun Wang**, David J. Benson. Multi-patch nonsingular isogeometric boundary element analysis in 3D. *Computer Methods in Applied Mechanics and Engineering*, 2015, 293:71-91. (SCI)
18. **Yingjun Wang**, Qifu Wang, Xiaowei Deng, Zhaohui Xia, Jinhui Yan, Hua Xu. Graphics Processing Unit (GPU) accelerated fast multipole BEM with level-skip M2L for 3D elasticity problems. *Advances in Engineering Software*, 2015,82:105-118. (SCI)
19. **Yingjun Wang**, Qifu Wang, Gang Wang, Yunbao Huang, Shuting Wang. An adaptive dual-information FMBEM for 3D elasticity and its GPU implementation. *Engineering Analysis with Boundary Elements*, 2013,37(2):236-249. (SCI)



20. Xinqing Li, Jianghong Yang, Mi Xiao, **Yingjun Wang***. Integrated optimization framework for multi-domain assemblies: A novel polygon topology to non-matching meshes and materials. *Engineering Analysis with Boundary Elements*, 2025, 179 : 106355. (SCI)
21. Zelong Liang, Yuan-Fang Zhang, **Yingjun Wang***, Weihua Li*. Integrating large models with topology optimization for conceptual design realization. *Advanced Engineering Informatics*, 2025, 67: 103524. (SCI)
22. Tan Gui, Zhihong Li, Yongjun Cao, Jianghong Yang, **Yingjun Wang***. An efficient parametric modeling and path planning method for 3D printing of curved surface corrugated sandwich structures. *Graphical Models*, 2025, 139: 101263. (SCI)
23. Jinyu Gu, Jianghong Yang, **Yingjun Wang***. High-cycle fatigue-constrained isogeometric topology optimization. *Thin-Walled Structures*, 2025: 112907. (SCI)
24. Xinqing Li, Hailiang Su, **Yingjun Wang***. An improved polygon mesh generation and its application in SBFEM using NURBS boundary. *Computational Mechanics*, 2025, 75:265-283. (SCI)
25. Shijie Luo, Feng Yang, **Yingjun Wang***. An efficient isogeometric topology optimization based on the adaptive damped geometric multigrid method. *Advances in Engineering Software*, 2024, 196: 103712. (SCI)
26. Jinyu Gu, Zhuo Chen, Kai Long, **Yingjun Wang***. Nonlinear fatigue damage constrained topology optimization. *Computer Methods in Applied Mechanics and Engineering*, 2024, 429: 117136. (SCI)
27. Xinqing Li, Hailiang Su, Jianghong Yang, Guifeng Gao, **Yingjun Wang***. NURBS-boundary-based quadtree scaled boundary finite element method study for irregular design domain. *Engineering Analysis with Boundary Elements*, 2024, 159: 418-433. (SCI)
28. Guifeng Gao, Jianghong Yang, Xinqing Li, Jinyu Gu, **Yingjun Wang***. Fluid topology optimization using quadtree-based scaled boundary finite element method. *Engineering Analysis with Boundary Elements*, 2024, 169: 106019. (SCI)
29. Jinyu Gu, Tan Gui, Qingwen Yuan, Jinping Qu, **Yingjun Wang***. Topology optimization method for local relative displacement difference minimization considering stress constraint. *Engineering Structures*, 2024, 304: 117595. (SCI)
30. Yuhao Yang, Yongfeng Zheng, Liang Gao, **Yingjun Wang***. Automatic construction method for editable CAD models of isogeometric topology optimization results. *Structural and Multidisciplinary Optimization*, 2023, 66(9): 208. (SCI)
31. Jinghui Li, Deepak Kumar Pokkalla, Zhen-Pei Wang*, **Yingjun Wang***. Deep learning-enhanced design for functionally graded auxetic lattices. *Engineering Structures*, 2023, 292: 116477. (SCI)
32. Jianghong Yang, Hailiang Su, Xinqing Li, **Yingjun Wang***. Fail-safe topology optimization for multiscale structures. *Computers & Structures*, 2023, 284: 107069. (SCI)
33. Zhenbiao Guo, Hailiang Su, Xinqing Li, **Yingjun Wang***. Multi-resolution topology optimization using B-spline



- to represent the density field. *Advances in Engineering Software*, 2023, 182: 103478. (SCI)
34. Wenjun Chen, Yongfeng Zheng, **Yingjun Wang***. Multi-objective topology optimization filled with multiple microstructures. *Composite Structures*, 2023, 304: 116322. (SCI)
35. Zhihao He, Gang Jin, **Yingjun Wang***. A novel grey wolf optimizer and its applications in 5G frequency selection surface design. *Frontiers of Information Technology & Electronic Engineering*, 2022, 23(9): 1338-1353. (SCI)
36. Sinuo Zhang, Daicong Da, **Yingjun Wang***. TPMS-infill MMC-based topology optimization considering overlapped component property. *International Journal of Mechanical Sciences*, 2022, 235: 107713. (SCI)
37. Yongfeng Zheng, Zhuojia Fu, **Yingjun Wang***, Xiang Lu, Jinping Qu, Chuanzeng Zhang. Hierarchical design of material microstructures with thermal insulation properties. *International Journal of Heat and Mass Transfer*, 2022, 186: 122514. (SCI)
38. Di Wang, Yongqiang Yang, **Yingjun Wang***, Li Yang, Hao Wang, Shoufeng Yang. Introduction to the Special Issue on Design and Simulation in Additive Manufacturing. *Computer Modeling in Engineering & Sciences*, 2021, 126(1): 1-4.
39. Wei Zheng, **Yingjun Wang***, Yongfeng Zheng, Daicong Da. Efficient topology optimization based on DOF reduction and convergence acceleration methods. *Advances in Engineering Software*, 2020, 149: 102890. (SCI)
40. Zhaohui Xia, Zhihao He, Qifu Wang, **Yingjun Wang***. A New Finite Element Model with Manufactured Error for Additive Manufacturing. *Computer Modeling in Engineering & Sciences*, 2020, 124 (2): 703-720. (SCI)
41. Zhongyuan Liao, **Yingjun Wang***, Liang Gao, Zhen-Pei Wang*. Deep-learning-based isogeometric inverse design for tetra-chiral auxetics. *Composite Structures*, 2022, 280: 114808. (SCI)
42. Xianda Xie, Shuting Wang*, **Yingjun Wang***, Ning Jiang, Wei Zhao, Manman Xu. Truncated hierarchical B-spline-based topology optimization. *Structural and Multidisciplinary Optimization*, 2020, 62(1): 83-105. (SCI)
43. Xianda Xie, Shuting Wang, Manman Xu, Ning Jiang, **Yingjun Wang***. A hierarchical spline based isogeometric topology optimization using moving morphable components. *Computer Methods in Applied Mechanics and Engineering*, 2020, 360: 112696. (SCI)
44. Zhongyuan Liao, Yu Zhang, **Yingjun Wang***, Weihua Li. A triple acceleration method for topology optimization. *Structural and Multidisciplinary Optimization*, 2019, 60(2), 727-744. (SCI)
45. Zhaohui Xia, **Yingjun Wang***, Qifu Wang, Chao Mei. GPU parallel strategy for parameterized LSM-based topology optimization using isogeometric analysis. *Structural and Multidisciplinary Optimization*, 2017, 56(2): 413-434. (SCI)
46. Xianda Xie, Shuting Wang, Manman Xu, **Yingjun Wang***. A new isogeometric topology optimization using moving morphable components based on R-functions and collocation schemes. *Computer Methods in Applied*

* Corresponding author

Mechanics and Engineering, 2018, 339: 61-90. (SCI)

47. Xiaowei Deng, **Yingjun Wang***, Jinhui Yan, Tao Liu, Shuting Wang. Topology optimization of total femur structure: application of parameterized level set method under geometric constraints. *Journal of Mechanical Design*, 2016, 138(1): 011402-1-8. (SCI)
48. Zhaohui Xia, Wanpeng Zhao, **Yingjun Wang**, Peng Li, Mi Xiao, Liang Gao. Multi-material isogeometric topology optimization for thermoelastic metamaterials. *International Journal of Heat and Mass Transfer*, 2025, 245: 126995. (SCI)
49. Long Chen, Junjun Che, Shuxun Liang, **Yingjun Wang**. Multiscale topology optimization of gradient lattice structure based on volume parametric modeling. *Composite Structures*, 2024, 328: 117746. (SCI)
50. Zhongyuan Liao, Tao Li, **Yingjun Wang**, Yi Cai. Soft pneumatic actuator optimal design based on isogeometric analysis. *Manufacturing Letters*, 2023, 35: 55-63. (ESCI)
51. Zhen-Pei Wang, **Yingjun Wang**, Leong Hien Poh, Zhuangjian Liu. Integrated shape and size optimization of curved tetra-chiral and anti-tetra-chiral auxetics using isogeometric analysis. *Composite Structures*, 2022: 116094. (SCI)
52. Tianyuan Gao, Jin Wang, **Yingjun Wang**, Senhao Zhang, Weidong Huang, Jin-ping Qu. A Novel Mandrel-Free Blown Film Die with Ultrashort Flow Distance and Uniform Discharge: Theoretical Modeling and Simulation. *Industrial & Engineering Chemistry Research*, 2022, 61(17): 5863-5875. (SCI)
53. Qinghui Wang, Zhanhui Wu, Zhijia Xu, Xiaolin Fang, Hao Zhao, **Yingjun Wang**, Da-Xiang Deng. Optimization of the coupling groove parameters of composite porous vapor chamber. *Applied Thermal Engineering*, 2022, 205: 118007. (SCI)
54. Zhijia Xu, Mansi Luo, Qinghui Wang, Hao Zhao, **Yingjun Wang**, Daxiang Deng. Shape optimization of composite porous vapor chamber with radial grooves: A study on the minimization of maximum pressure drop. *Applied Thermal Engineering*, 2022, 201: 117735. (SCI)
55. Chen Yu, Qifu Wang, Zhaohui Xia, **Yingjun Wang**, Chao Mei, Yunhua Liu. Multiscale topology optimization for graded cellular structures based on level set surface cutting. *Structural and Multidisciplinary Optimization*, 2022, 65(1): 1-17. (SCI)
56. Yongfeng Zheng, **Yingjun Wang**, Zhen Luo, Xiang Lu, Jinping Qu. Concurrent design for structures and material microstructures under hybrid uncertainties. *Materials & Design*, 2021 (205): 109728. (SCI)
57. Xianda Xie, Aodi Yang, **Yingjun Wang**, Ning Jiang, and Shuting Wang. Fully adaptive isogeometric topology optimization using MMC based on truncated hierarchical B-splines. *Structural and Multidisciplinary Optimization*, 2021, 63(6): 2869-2887. (SCI)
58. Yongfeng Zheng, **Yingjun Wang**, Xiang Lu, Jing Zheng, and Jinping Qu. Topology optimisation for isotropic

* Corresponding author



- mechanical metamaterials considering material uncertainties. *Mechanics of Materials*, 2021, 155:103742. (SCI)
59. Shengyu Shi, Han Haitjema, **Yingjun Wang**, Gang Jin. Uncertainty evaluation and reduction in three-probe roundness profile measurement based on the system transfer function. *Precision Engineering*, 2021, 68: 139-157. (SCI)
60. Yongfeng Zheng, **Yingjun Wang**, Xiang Lu, Zhongyuan Liao, Jinping Qu*. Evolutionary Topology Optimization for Mechanical Metamaterials with Auxetic Property. *International Journal of Mechanical Sciences*, 2020, 179: 105638. (SCI)
61. Qing-Hui Wang, Hao Zhao, Zhi-Jia Xu, Jing-Rong Li, Da-Xiang Deng, **Ying-Jun Wang**. Influence of groove parameters on the thermal hydraulic performance of a composite porous vapor chamber: A numerical study. *Applied Thermal Engineering*. 2020, 172: 115149. (SCI)
62. Xuemei Guo, Zenan Lin, **Yingjun Wang**, Zhangping He, Mengmeng Wang, Gang Jin. In-Line Monitoring the Degradation of Polypropylene under Multiple Extrusions Based on Raman Spectroscopy. *Polymers* 2019, 11(10):1698. (SCI)
63. Jingrong Li, Zhijia Xu, Qinghui Wang, Guanghua Hu, **Yingjun Wang**. Coupling control of pore size and spatial distribution in bone scaffolds based on a random strategy for additive manufacturing. *Rapid Prototyping Journal*, 2019, 25(6): 1030-1044. (SCI)
64. Zhaohui Xia, Qifu Wang, Qinghua Liu, **Yingjun Wang**, Jun Liu, Gang Chen. A novel approach for automatic reconstruction of boundary condition in structure analysis. *Advances in Engineering Software*, 2016, 96:38-57. (SCI)
65. Zhaohui Xia, Qifu Wang, **Yingjun Wang**, Chen Yu. A CAD/CAE incorporate software framework using a unified representational architecture. *Advances in Engineering Software*, 2015, 87:68-85. (SCI)
66. Yixiong Wei, Qifu Wang, Yunbao Huang, **Yingjun Wang**, Zhaohui Xia. Acceleration of free-vibrations analysis with the Dual Reciprocity BEM based on *H*-matrices and CUDA. *Engineering Computations*, 2015, 32(2):211-233. (SCI)
67. Hua Xu, Tianbin Li, Jingsong Xu, **Yingjun Wang**. Dynamic response of underground circular lining tunnels subjected to incident P waves. *Mathematical Problems in Engineering*, 2014:297424. (SCI)
68. Yixiong Wei, Qifu Wang, **Yingjun Wang**, Yunbao Huang. Optimizations for elastodynamic simulation analysis with FMM-DRBEM and CUDA. *Computer Modeling in Engineering & Sciences*, 2012, 86(3):241-273. (SCI)
69. Gang Wang, Qifu Wang, **Yingjun Wang**. GPU Based boundary element analysis for 3D elastostatics with GMRES-DC algorithm solving system equations. *Advanced Materials Research*, 2011, 308-310: 2345-2348. (EI)
70. 杨峰, 罗世杰, 杨江鸿, **王英俊***. 基于 GPU 加速的等几何拓扑优化高效多重网格求解方法. 中国机械工程, 2024, 35(4):602-613. (EI 收录)



71. 杨雨豪,郑伟,王英俊*.一种自由度缩减和收敛加速的高效等几何拓扑优化方法. 中国机械工程, 2022, 33(23):2811-2821. (EI 收录)
72. 晋刚, 何志豪, 王英俊*. 基于遗传算法的 5G 频率选择表面形状优化方法. 华南理工大学学报(自然科学版), 2021, 49(11): 95-105. (EI 收录)
73. 韦雄棉, 王迪, 杨永强, 韩昌骏, 陈杰, 肖云绵, 周鑫, 王兴隆, 邓澄, 王英俊. 激光选区熔化钛合金多孔结构拉伸性能研究. 中国激光, 2021, 48(18): 149-162. (EI 收录)
74. 廖中源, 王英俊*, 王书亭. 基于拓扑优化的变密度点阵结构体优化设计方法. 机械工程学报, 2019, 55(8): 65-72. (EI 收录, 《机械工程学报》2019 年度高被引论文 Top10 之一, 第五届优秀论文)
75. 王英俊, 王启富, 王钢等. CUDA 架构下的三维弹性力学边界元并行计算. 计算机辅助设计与图形学学报. 2012, 24(1):112-119. (EI 收录)

会议论文/会议报告

1. **Yingjun Wang**, Wei Zheng. An efficient topology optimization method based on a multi-level adaptive mesh. *2021 International Conference of Mechanical Design & The 21th Annual Conference on Mechanical Design*, August 14-16, 2022, Changsha, China.
2. **Yingjun Wang**, Zhongyuan Liao, Yu Zhang. A High-efficient Topology Optimization Using a Triple Acceleration Method. *The 10th International Conference on Computational Methods*, July 9-13, 2019, Singapore
3. **Yingjun Wang**, Zhongyuan Liao, Yu Zhang. A New High-efficiency Isogeometric Topology Optimization. *The 13th World Congress of Structural and Multidisciplinary Optimization*, May 19-24, 2019, Beijing, China
4. **Yingjun Wang**. A High-fidelity Computational Model for AM Models with Manufacturing Errors. *The 13th World Congress on Computational Mechanics*, July 22-27, 2018, New York, USA
5. **Yingjun Wang**. Graded Cellular Hip Implant Design through Topology Optimization and Additive Manufacturing. *IUTAM Symposium on When topology optimization meets additive manufacturing – theory and methods*, October. 8-12, 2018, Dalian, China
6. **Yingjun Wang**, Damiano Pasini. Lattice Hip Implant Design by Multi-scale Multi-constraint Topology Optimization. *The 24th International Congress of Theoretical and Applied Mechanics*, August 21-26, 2016, Montreal, Canada
7. ZhaohuiXia, Qifu Wang, Yunbao Huang, Yixiong Wei, **Yingjun Wang**. Parallel strategy of FMBEM for 3D elastostatics and its GPU implementation using CUDA. *Proceedings of the ASME IDETC/CIE*, 2014, Buffalo, USA.
8. ZhaohuiXia, Qifu Wang, Yunhua Liu, **Yingjun Wang** and Yixiong Wei. M2L optimization in FMBEM and its GPU implementation. *36th International Conference on Boundary Element and other Mesh Reduction Techniques*, 2013, Dalian, China.



9. Yixiong Wei, Qifu Wang, **Yingjun Wang**, Yunbao Huang, Linchi Zhang. Acceleration of modal analysis by FMM based on DRBEM. *Proceedings of the ASME IDETC/CIE*, 2012, Chicago, USA.
10. **Yingjun Wang**, Qifu Wang, Gang Wang, Yunbao Huang, Yixiong Wei. Boundary element parallel computation for 3D elastostatics using CUDA. *Proceedings of the ASME IDETC/CIE*, 2011, Washington, DC, USA.

专利/软著

1. **王英俊**, 杨雨豪, 廖中源; 等几何拓扑优化结果的可编辑模型自动构建方法及系统, 2021-2-25, 发明专利(已授权), ZL202110211498.6.
2. **王英俊**, 郑伟; 一种结构刚度高效拓扑优化方法及系统, 2020-8-10, 发明专利(已授权), ZL202010795704.8.
3. **王英俊**, 杨江鸿, 杨雨豪; 一种基于收敛加速的高效等几何拓扑优化方法, 发明专利(申请), 2023-7-14, 202310863589.7.
4. **王英俊**, 李信卿, 杨雨豪; 一种基于自由度缩减的高效等几何拓扑优化方法, 发明专利(申请), 2023-7-14, 202310873913.3.
5. **王英俊**, 张思诺, 吕辉; 一种精确微结构填充的拓扑优化方法及系统, 发明专利(申请), 2022-6-21, CN202210705793.1.
6. **王英俊**, 李璟慧; 李振聪; 张建城; 王楠; 一种基于几何重建模型的等几何分析方法, 2020-4-7, 发明专利(授权), ZL202010263526.4.
7. **王英俊**, 陈文俊; 一种结果逼近的多目标拓扑优化方法、系统、介质和设备, 发明专利(申请), 2022-6-14, (授权), ZL202210664764.5
8. **王英俊**、何志豪、晋刚; 一种基于自适应灰狼算法的频率选择表面设计方法及系统, 发明专利(申请), 2021-12-15, CN202111532868.2
9. 叶鸣, **王英俊**, 卢仲康, 陈伟侠; 基于Grasshopper的复杂变密度多孔结构建模方法, 发明专利(申请), CN202110828383.1,
10. **王英俊**, 廖中源; 一种三重加速的拓扑优化方法, 2018-12-15, 中国, CN201811537582.1.
11. **王英俊**, 李璟慧, 李振聪, 张建城, 王楠; 一种基于几何重建模型的等几何分析方法, 2020-11-24, 国际PCT专利(申请), PCT/CN2020/131070.
12. **王英俊**, 杨雨豪, 廖中源; 等几何拓扑优化结果的可编辑模型自动构建方法及系统, 2021-9-24, 国际PCT专利, PCT/CN2021/120037.
13. **王英俊**, 廖中源; 基于嵌入域重构模型的等几何分析软件[简称: BRMIGA]V1.0, 软件著作权, 2021SR0045889, 原始取得, 全部权利, 2020-10-26.

特邀报告/大会报告

1. the Global Meet on Mechanical and Mechatronics Engineering (GMMME2023), 线上, 2023.08.21(大会报告)
2. **王英俊**; 从计算机辅助设计(CAD)到人辅助设计(HAD), 2023 年拓扑优化最新研究进展及应用青年研讨



会, 武汉, 2023-4-1. (大会报告)

3. 王英俊, 廖中源; 基于深度学习的拉胀结构等几何优化设计, 中国力学大会-2021+1, 成都, 2022-11-4 至 2022-11-10 (邀请报告)
4. 王英俊; 基于等几何分析的结构拓扑优化技术, 第十三届全国几何设计与计算学术会议, 长沙, 2021-10-9 至2021-10-11 (特邀报告)
5. 王英俊; 考虑加工误差的高精度增材制造制件计算模型, 第一届增材制造与创新设计论坛, 广州, 2019-11-29至2019-12-1. (特邀报告)
6. 王英俊; 复杂域等几何拓扑优化关键技术之一——分析模型构建, 华中科技大学第八期梧桐雨问学论坛 “结构优化最新研究进展及应用”, 武汉, 2019-12-15至2019-12-15. (大会报告)
7. 王英俊; 汽车轻量化结构最优设计及CAE技术分析, 2018 (第七届) 国际交通用金属材料发展论坛, 深圳, 2018-9-13至2018-9-14. (大会报告)
8. 王英俊; 基于等几何分析的结构拓扑优化, 计算机图形学与混合现实研讨会, 2018-3-22. (网络直播讲座)

期刊审稿人

- Computer Methods in Applied Mechanics and Engineering
- Structural and Multidisciplinary Optimization
- Computer-Aided Design
- Cell Reports Physical Science
- International Journal of Mechanical Sciences
- Composites Part B
- Thin-Walled Structures
- Scientific Reports
- Virtual and Physical Prototyping
- International Journal for Numerical Methods in Engineering
- Engineering Structures
- Engineering with Computers
- Journal of Mechanical Design
- Advances in Engineering Software
- Frontiers of Mechanical Engineering
- Materials Science and Engineering: C
- International Journal of Materials and Product Technology
- Engineering Reports
- Mechanics of Advanced Materials and Structures
- Engineering Optimization
- Acta Mechanica Sinica



- CMES-Computer Modeling in Engineering & Sciences
- IEEE Access
- AIP Advances
- Engineering Computations
- International Journal of Computational Methods
- Mathematical Problems in Engineering
- HKIE Transactions
- 《机械工程学报》
- 《力学学报》
- 《工程力学》
- 《图学学报》
- 《华中科技大学学报（自然科学版）》
- 《力学季刊》

期刊编辑

- CMES-Computer Modeling in Engineering & Sciences, Associate Editor (SCI)
- ITE Collaborative Intelligent Manufacturing, Associate Editor (EI, ESCI)
- 《机械工程学报》，青年编委
- 《机电工程技术》，青年编委
- Additive Manufacturing Frontiers (AMF)《增材制造前沿(英文)》，青年编委

国内外评审专家

- 国家科技专家库专家
- 国家自然科学基金评审专家
- 广东省高层次人才评审专家库专家
- 广东省自然科学基金评审专家
- 浙江省自然科学基金评审专家
- 陕西省自然科学基金评审专家
- 哈萨克斯坦教育和科学部外审专家
- 新加坡国立大学博士论文外审专家

获奖情况

- 2020 CMES杰出青年学者奖（2020 CMES Young Research Award）
- 2020 CMES优秀编辑奖（CMES 2020 Editor Award）
- “2022 年汽车轻量化应用技术创新大赛”优秀奖
- 机械工程学报优秀论文奖

学术组织任职

- 中国图学学会微观几何设计与制造专业委员会委员



- 广东省力学学会理事
- 广东省力学学会计算力学专委会委员
- 广东省力学学会青年工作委员会委员
- 新加坡Viser出版社机械工程学术委员会委员