白杰云，暨南大学计算机学院副教授，华侨医院双聘教授，广州莲印医疗科技有限公司医学人工智能首席科学家.专注医学数字孪生、医学影像处理与智慧医疗研究。主持国家自然科学基金等10余项课题，参与国家级项目7项。发表论文60余篇，申请发明专利20余项，参与3项医疗器械注册产品。曾荣获哈尔滨工业大学“十佳英才”提名奖、工信部创新一等奖学金等称号。现任中国计算机学会数字医疗学会执行委员、电子学会智慧医疗专委会执行委员、中国生物医学工程学会生物医学测量分会委员，中国计算机学会生物信息学专委会委员，中国人工智能学会生物信息学与人工生命专委会委员，医学图像计算青年研讨会（MICS）委员，广东省生物医学工程学会智慧医疗分会委员，广东省教育协会围产医学专委委员，国家自然科学基金函评专家，MICCAI 2023 - 2025超声影像分析挑战赛主席、ISBI 2025超声影像分析挑战赛主席及程序委员会委员、ICDM 2025研讨会程序委员会委员。IEEE JBHI的客座编辑，Scientific Data的编委，以及Medicine Advances、Cardiovascular Innovations and App青年编委。

个人主页： https://scholar.google.com.sg/citations?user=S-tEilMAAAAJ&hl=zh-CN

基本信息

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单位：暨南大学，信息科学技术学院，广东省智慧医疗电子信息工程技术研究中心

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- ✧ 中国生物医学工程学会会员；
- ✧ 中国图象图形学会会员；
- ✧ 中国自动化学会会员；
- ✧ 中国人工智能学会会员；
- ✧ 中国计算机学会会员；
- ✧ 中国电子学会会员；
- ✧ 中国生物医学工程学会生物医学测量分会委员；
- ✧ MICS 委员会委员；

- ✧ 广东省生物医学工程学会智慧医疗分会委员；
- ✧ 国家自然科学基金函评专家；
- ✧ IEEE 标准协会会员；
- ✧ MICCAI 协会会员；
- ✧ ISUOG 协会会员；
- ✧ Scientific Data 编委；
- ✧ Medicine Advances 青年编委；
- ✧ Cardiovascular Innovations and Applications 青年编委；
- ✧ Frontier in Physiology 客座编辑；
- ✧ Frontier in Medical Technology 客座编辑；
- ✧ Journal of Visualized Experiments (JoVE) 客座编辑；
- ✧ ISBI Meta-reviewer
- ✧ MICCAI reviewer

教育背景

2018/01-2019/03，奥克兰大学，生物医学工程，博士后，合作导师：Jichao Zhao 教授

2013/09-2017/12，哈尔滨工业大学，计算机应用技术，工学博士，导师：王宽全&张恒贵教授

2010/09-2013/07，东北林业大学，计算机应用技术，工学硕士，导师：任洪娥教授

2006/09-2010/07，东北林业大学，信息管理与信息系统，工学学士；

工作经历

2025/07-至今，暨南大学华侨医院，双聘教授；

2019/03-至今，暨南大学，副教授；

2021/11-至今，广州莲印医疗科技有限公司，医学人工智能首席科学家；

2023/07-至今，奥克兰大学奥克兰生物医学工程研究所，访问学者，合作导师：Jichao Zhao 教授

主持和参与科研项目

1. 国家外国专家项目, H20240205，基于数字孪生心脏模型的抗心律失常药物毒性评估，

2025 年 1 月-2026 年 12 月，**主持**

2. 国家自然科学基金委，青年项目，61901192，基于多尺度心脏计算模型的 Timothy 综合征发病机制研究，2019 年 1 月-2022 年 12 月，**主持**
3. 国家自然科学基金委，面上项目，个体化的虚拟生理心室建模与仿真方法研究，2016 年 1 月-2019 年 12 月，参与（王宽全教授，主持）
4. 国家自然科学基金委，面上项目，基于 3D 电-力耦合人心室模型的生物起搏器机制研究，2016 年 1 月-2019 年 12 月，参与（张恒贵教授，主持）
5. 国家自然科学基金委，面上项目，大规模的多尺度和多模态虚拟心脏计算与可视化方法研究，2012 年 1 月-2015 年 12 月，参与（王宽全教授，主持）
6. 国家自然科学基金委，面上项目，基于计算心脏模型的遗传性短 QT 综合症发病机制的研究，2016 年 1 月-2019 年 12 月，参与（张恒贵教授，主持）
7. 科技部，国家重点研发计划项目，2017YFC0113000，高可信强智能的心脑血管疾病诊疗服务模式解决方案，2017-12 至 2020-12，参与（王宽全教授，子课题负责人）
8. 科技部，国家重点研发计划项目，2019YFC0120107，妇幼医疗机构数字诊疗设备数据管理云平台，2019-12 至 2021-12，参与（陆尧胜教授，子课题负责人）；
9. 科技部，国家重点研发计划项目，2019YFC0120100，分娩监护仪关键技术及其产业化研发，2019-12 至 2021-12，参与（王会进教授，主持）
10. 广东省自然科学基金委，面上项目，2024A1515011886，基于数字孪生右心房模型的个体化导管消融策略研究，2024-01 至 2026-12，**主持**
11. 广东省自然科学基金委，面上项目，2023A1515012833，面向抗房颤药物的数字孪生心脏建模仿真与应用研究，2023-01 至 2025-12，**主持**
12. 广西省科技厅，广西省重点研发计划项目，2023AB22074，基于人工智能产程超声和多元数据融合的分娩监测平台构建与应用示范，2024-05 至 2027-04，参与（陆尧胜教授，单位负责人）
13. 广西省科技厅，广西省重点研发计划项目，2024AB04027，智能化医共体母胎监护与危重孕产妇风险预警平台构建与应用研究，2025-01 至 2028-04，参与（陆尧胜教授，单位负责人）
14. 广州市科学技术局，重点研发计划项目，2024B03J1283，基于多源数据融合的分娩导航创新技术及评估系统研发，2024-01 至 2026-12，**主持（合作单位负责人）**
15. 广州市科学技术局，基础与应用基础项目，202201010544，基于多尺度心房计算模型的 Pitx2 致心房颤动仿真研究，2021-04 至 2023-04，**主持**
16. 暨南大学，科研启动项目，多尺度心脏建模仿真及应用，2019-03 至 2022-04，**主持**

特邀报告

2024.12.19《产程超声人工智能研究进展：珠江与暨大的医工成果分享》第一届广东省产程超声论坛

2025.01.04《智慧医疗与人工智能学术研与成果转化》智慧产科创新技术与产科现代化建设论坛

2025.06.06《面向医疗健康的人体数字孪生技术》：2025智源大会|AI+理工&医学专题论坛

科研成果

组织的国际医学图像分析挑战赛

1. Bai, J., Khobo, I., Lu, Y., Ni, D., Yaqub, M., Lekadir, K., Ma, J., & Li, S. (2025). Landmark Detection Challenge for Intrapartum Ultrasound Measurement Meeting the Actual Clinical Assessment of Labor Progress. Medical Image Computing and Computer Assisted Intervention 2025 (MICCAI). Zenodo. https://doi.org/10.5281/zenodo.15172238
2. Bai, J., Yang, Z., Hasan, K., Gan, J., Liang, Z., Cai, W., Tan, T., Ye, J., Yaqub, M., Ni, D., Slimani, S., Ohene-Botwe, B., Roman Victor Manuel, C., & Lekadir, K. (2024). Fetal Ultrasound Grand Challenge: Semi-Supervised Cervical Segmentation (FUGC25). IEEE International Symposium on Biomedical Imaging (ISBI 2025). Zenodo. https://doi.org/10.5281/zenodo.14328192
3. Bai, J., Lekadir, K., Ni, D., Slimani, S., Campello, V. M., Ohene-Botwe, B., Lu, Y., Chen, G., Hou, H., Qiu, D., & Zhou, Z. (2024). Intrapartum Ultrasound Grand Challenge 2024. 27th International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2024). Zenodo. https://doi.org/10.5281/zenodo.10979813
4. Bai, J., Ou, Z., Lu, Y., Ni, D., & Chen, G., (2023). Pubic Symphysis-Fetal Head Segmentation from Transperineal Ultrasound Images. International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI) 2023 (MICCAI 2023). Zenodo. https://doi.org/10.5281/zenodo.7861699

参与的产品注册证

1. 超声多普勒胎儿监护仪，注册号：粤械注准 20202180011，2020 年。
2. 中央监护信息中心软件，注册号：粤械注准 20212210102，2021 年。
3. 母亲胎儿多参数监护仪，注册号：粤械注准 20222070568，2022 年。
4. 彩色多普勒超声系统，注册号：粤械注准 20232060110，2023 年。

发明专利

1. 白杰云,陆尧胜,杨仁桓.一种人类心房数学模型的构建方法[P].广东省:CN201910603068.1, 2022-11-29.
2. 白杰云,陆尧胜,杨仁桓.窦房结虚拟生理组织的构建方法、存储介质和计算设备[P].广东

省: CN201910496083.0,2021-12-24.

3. 王宽全,白杰云,张恒贵,等.一种用于分析 CaMKII 致室性心律失常的仿真系统[P].黑龙江省:CN201611099890.1,2019-04-30.
4. 王宽全,白杰云,张恒贵,等.一种基于多尺度心脏 Thimthy 综合症发病机制的建模方法[P].黑龙江省:CN201510938331.4,2018-03-30.
5. 白杰云,康雪,陆尧胜,等.一种基于集成多级降噪编码器的胎心率的缺失值填充装置和方法[P].广东省:CN202410075576.8,2024-03-29.
6. 白杰云,丘瑞瑜,朱锦文. 基于卷积神经网络的左心房疤痕自动分割方法及系统[P]. 广东省: CN202410295566.5, 2024-07-19.
7. 白杰云,丘瑞瑜,朱锦文. 基于多任务网络级联的左心房壁自动分割方法及系统[P]. 广东省: CN202410295565.0, 2024-06-21.
8. 白杰云,郑佳禄,罗凯泽,等.一种冠状动脉周围脂肪组织三维重建与可视化方法及装置[P].广东省:CN202311735326.4,2024-04-09.
9. 白杰云,丘瑞瑜,陆尧胜.基于共享 CNN 的三维医学图像两阶段分割方法及装置[P].广东省:CN202310559706.0,2023-08-29.
10. 陆尧胜,肖雅惠,刘慕俊,等.一种基于特征融合网络的胎儿状态评估方法[P].广东省:CN202410133522.2,2024-04-02.
11. 陆尧胜,曾镕丹,刘慕俊,等.一种基于分割网络的胎心率基线自动计算方法[P].广东省:CN202110829622.5,2021-11-05.
12. 陆尧胜,陈圳森,王幼萍,等.一种用于胎头耻骨联合分割的基于方向引导的多尺度特征筛选方法[P].广东省:CN202410133174.9,2024-04-09.
13. 陆尧胜,陈福新,白杰云,等.恒流脉冲产生电路、半导体激光器及半导体器件测试设备[P].广东省:CN202311192931.1,2024-01-02.
14. 陆尧胜,周孟强,丘瑞瑜,等.基于母胎超声视频的超声参数自动测量方法、装置、设备和介质[P].广东省:CN202310267563.6,2023-06-23.
15. 陆尧胜,周孟强,丘瑞瑜,等.基于风格迁移的超声图像处理方法、装置、设备和介质[P].广东省:CN202211263415.9,2022-12-30.
16. 白杰云,王以珪,张依凡,等.基于卷积神经网络的超声图像的宫口直径测量方法及装置[P].广东省:CN202310586888.0,2023-08-29.
17. 白杰云,陆尧胜.基于超声图像的产程进展角测量方法、系统、设备及介质[P].广东省:CN202211038213.4,2022-12-27.
18. 白杰云,陆尧胜.产时母胎超声标准切面图像识别方法、系统、设备及介质[P].广东省:CN202211038224.2,2022-12-27.
19. 李瑞满,陆尧胜,刘嘉,等.基于胎监宫缩图和高危因素的产后出血风险预测方法及预警系统[P].广东省:CN202110906875.8,2021-11-05.

20. 陆尧胜,区湛鸿,黄郁馨,等. 一种产时母胎超声图像的实时语义分割方法[P]. 广东省: CN202310669950.2, 2024-12-10.

21. 陆尧胜,陈福新,白杰云,等. 一种用于采集孕妇腹部母胎生理电信号的电子装置及计算机介质[P]. 广东省: CN202310635494.X, 2024-12-03.

学术专著

1. Bai J, and Lu Y. Intrapartum Ultrasound Grand Challenge 2024, Held in Conjunction with MICCAI 2024, Marrakesh, Morocco, October 6 – 10, 2024, Proceedings (In Press)

2. Bai, J., Ni, H., Zhao, J., Dechun, Y., eds. (2023). Diagnosis, monitoring, and treatment of heart rhythm: New insights and novel computational methods. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-8325-3387-1

期刊论文(2019至今)

1. Bai J, Wang W, Zhang X, et al. Sex-specific Identification of Class III Antiarrhythmic Drugs Based on In Vitro Measurements, Computer models, and Machine Learning Tools[J]. ***PLoS computational biology***. 2025 (In Press).

2. Zhao, J., Sharma, R., Kalyanasundaram, A., Kennelly, J., Bai, J., Li, N., Panfilov, A., & Fedorov, V. V. (2023). Mechanistic insight into the functional role of human sinoatrial node conduction pathways and pacemaker compartments heterogeneity: A computer model analysis. ***PLoS computational biology***, 19(12), e1011708.

3. Bai, J., Lo, A., Gladding, P. A., Stiles, M. K., Fedorov, V. V., & Zhao, J. (2020). In silico investigation of the mechanisms underlying atrial fibrillation due to impaired Pitx2. ***PLoS computational biology***, 16(2), e1007678.

4. Bai J, Zhou Z, Ou Z, et al. PSFHS challenge report: Pubic symphysis and fetal head segmentation from intrapartum ultrasound images[J]. ***Medical Image Analysis***, 2025, 99: 103353.

5. Bai J, Zhu J, Chen Z, et al. A Benchmark Framework for the Right Atrium Cavity Segmentation From LGE-MRIs[J]. ***IEEE transactions on medical imaging***. 2025 (In Press).

6. Chen Z, Lu Y, Long S, Campello VM, Bai J, Lekadir K. Fetal Head and Pubic Symphysis Segmentation in Intrapartum Ultrasound Image Using a Dual-Path Boundary-Guided Residual Network. ***IEEE J Biomed Health Inform***. 2024 Aug;28(8):4648-4659.

7. A Kulathilaka, R Sharma, J Kennelly, N Li, J Bai, BH Smaill, ML Trew, VV Fedorov, and J Zhao. Structural determinants of re-entrant drivers in atrial fibrillation: insights from digital twins of 3d micron-resolution imaging of human heart[J]. ***The Journal of physiology***. 2025 (In Press).

8. Wu Q, Lu Y, Kang X, et al. ETCNN: An ensemble transformer-convolutional neural network for automatic analysis of fetal heart rate[J]. ***Biomedical Signal Processing and Control***, 2024, 96: 106629.

9. Ou Z, Bai J, Chen Z, et al (2024). RTSeg-Net: A Lightweight Network for Real-time Segmentation of Fetal Head and Pubic Symphysis from Intrapartum Ultrasound Images[J]. ***Computers in Biology and Medicine***, 2024: 108501.

10. Qiu, R., Zhou, M., Bai, J., Lu, Y. & Wang, H. (2024). HPSSP-Net: An Efficient Lightweight Network for Identifying Head-Pubic Symphysis Standard Plane from Intrapartum Ultrasound Images. ***Medical & Biological Engineering & Computing***. 2024;62(10):2975-2986.

11. Zhou, M., Wang, C., Lu, Y., Qiu, R., Zeng, R., Zhi, D., ... & Bai, J. (2023). The segmentation effect of style transfer on fetal head ultrasound image: a study of multi-source data. ***Medical & Biological Engineering & Computing***, *61*(5), 1017-1031.

12. Lu, Y., Jiang, X., Zhou, M., Zhi, D., Qiu, R., Ou, Z., & Bai, J. (2023). A hybrid attentional guidance network for tumors segmentation of breast ultrasound images. ***International Journal of Computer Assisted Radiology and Surgery***, *18*(8), 1489-1500.

13. Zhang Y, Zhu J, Long S, et al. An automatic measurement of cervix dilation in intrapartum ultrasound image[J]. Signal, Image and Video Processing, 2025, 19(3): 1-14.

14. Bai J, Kang X, Wang W, et al. A multimodal model in the prediction of the delivery mode using data from a digital twin-empowered labor monitoring system[J]. Digital Health, 2024, 10: 20552076241304934.

15. Zhou Z, Lu Y, Bai J, et al. Segment anything model for fetal head-pubic symphysis segmentation in intrapartum ultrasound image analysis[J]. Expert Systems with Applications, 2024: 125699.

16. Zhu, J., Bai, J., Zhou, Z., Liang, Y., Chen, Z., Chen, X., & Zhang, X. (2024). RAS Dataset: A 3D Cardiac LGE-MRI Dataset for Segmentation of Right Atrial Cavity. Scientific data, 11(1), 401.

17. Chen Z, Lu Y, Long S, et al. Dual-path multi-branch feature residual network for salient object detection[J]. Engineering Applications of Artificial Intelligence, 2024, 133: 108530.

18. Chen, Z., Ou, Z., Lu, Y., & Bai, J. (2024). Direction-guided and multi-scale feature screening for fetal head–pubic symphysis segmentation and angle of progression calculation. *Expert Systems with Applications*, *245*, 123096.

19. Chen, G., Bai, J., Ou, Z., Lu, Y., & Wang, H. (2024). PSFHS: Intrapartum ultrasound image dataset for AI-based segmentation of pubic symphysis and fetal head. *Scientific Data*, *11*(1), 436.

20. Zhao, J., Kennelly, J., Nalar, A., Kulathilaka, A., Sharma, R., Bai, J., Li, N., & Fedorov, V. V. (2023). Chamber-specific wall thickness features in human atrial fibrillation. Interface focus, 13(6), 20230044.

21. Bai, J., Lo, A., Kennelly, J., Sharma, R., Zhao, N., Trew, M. L., & Zhao, J. (2023). Mechanisms of pulmonary arterial hypertension-induced atrial fibrillation: insights from multi-scale models of the human atria. Interface focus, 13(6), 20230039.

22. Bai, J., Zhao, J., Ni, H., & Yin, D. (2023). Editorial: Diagnosis, monitoring, and treatment of heart rhythm: new insights and novel computational methods. Frontiers in physiology, 14, 1272377.

23. Bai, J., Qiu, R., Chen, J., Wang, L., Li, L., Tian, Y., ... & Zhao, J. (2023). A two-stage method with a shared 3D U-net for left atrial segmentation of late gadolinium-enhanced MRI images. *Cardiovascular Innovations and Applications*, *8*(1).

24. Chen, Z., Bai, J., & Lu, Y. (2023). Dilated convolution network with edge fusion block and directional feature maps for cardiac MRI segmentation. *Frontiers in Physiology*, *14*, 1027076.

25. Liu, M., Zeng, R., Xiao, Y., Lu, Y., Wu, Y., Long, S., ... & Bai, J. (2023). Automated fetal heart rate analysis for baseline determination using EMAU-Net. Information Sciences, 644, 119281.

26. Liu, M., Zeng, R., Xiao, Y., Bai, J., Liu, J., Zheng, Z., & Lu, Y. (2023). Baseline/acceleration/deceleration determination of fetal heart rate signals using a novel ensemble LCResU-Net. *Expert Systems with Applications*, *218*, 119610.

27. Bai, J., Pan, X., Lu, Y., Zhong, M., Wang, H., Zheng, Z., & Guo, X. (2023). Comparison of fetal heart rate baseline estimation by the cardiotocograph network and clinicians: a multidatabase retrospective assessment study. *Frontiers in Cardiovascular Medicine*, *10*.

28. Bai, J., Lu, Y., Wang, H., & Zhao, J. (2022). How synergy between mechanistic and statistical models is impacting research in atrial fibrillation. *Frontiers in physiology*, *13*, 957604.

29. Zhong, M., Yi, H., Lai, F., Liu, M., Zeng, R., Kang, X., ... & Lu, Y. (2022). CTGNet: Automatic analysis of fetal heart rate from cardiotocograph using artificial intelligence. *Maternal-Fetal Medicine*, *4*(2), 103-112.

30. Xiao Y, Lu Y, Liu M, et al. A deep feature fusion network for fetal state assessment[J]. *Frontiers in Physiology*, 2022, 13: 969052.

31. Liu, J., Wang, C., Yan, R., Lu, Y., Bai, J., Wang, H., & Li, R. (2022). Machine learning-based prediction of postpartum hemorrhage after vaginal delivery: combining bleeding high risk factors and uterine contraction curve. *Archives of Gynecology and Obstetrics*, *306*(4), 1015-1025.

32. Lu, Y., Zhi, D., Zhou, M., Lai, F., Chen, G., Ou, Z., ... & Bai, J. (2022). Multitask Deep Neural Network for the Fully Automatic Measurement of the Angle of Progression. *Computational & Mathematical Methods in Medicine*.

33. Lu Y, Zhou M, Zhi D, et al. The JNU-IFM dataset for segmenting pubic symphysis-fetal head[J]. *Data in Brief,* 2022, 41: 107904.

34. Bai, J., Sun, Z., Yu, S., Lu, Y., Long, S., Wang, H., ... & Chen, G. (2022). A framework for computing angle of progression from transperineal ultrasound images for evaluating fetal head descent using a novel double branch network. *Frontiers in Physiology*, *13*, 940150.

35. Liu, H., Wang, H., Bai, J., Lu, Y., & Long, S. (2022). DeepSSR: a deep learning system for structured recognition of text images from unstructured paper-based medical reports. *Annals of Translational Medicine*, *10*(13).

36. Bai, J., Lu, Y., Zhu, Y., Wang, H., Yin, D., Zhang, H., ... & Zhao, J. (2021). Understanding PITX2-dependent atrial fibrillation mechanisms through computational models. *International Journal of Molecular Sciences*, *22*(14), 7681.

37. Bai, J., Zhu, Y., Lo, A., Gao, M., Lu, Y., Zhao, J., & Zhang, H. (2021). In silico assessment of class i antiarrhythmic drug effects on Pitx2-induced atrial fibrillation: insights from populations of electrophysiological models of human atrial cells and tissues. *International Journal of Molecular Sciences*, *22*(3), 1265.

38. Zhu, Y., Bai, J., Lo, A., Lu, Y., & Zhao, J. (2021). Mechanisms underlying pro-arrhythmic abnormalities arising from Pitx2-induced electrical remodelling: An in silico intersubject variability study. *Annals of translational medicine*, *9*(2).

39. Liu, M., Lu, Y., Long, S., Bai, J., & Lian, W. (2021). An attention-based CNN-BiLSTM hybrid neural network enhanced with features of discrete wavelet transformation for fetal acidosis

classification. *Expert Systems with Applications*, *186*, 115714.

40. Zeng, R., Lu, Y., Long, S., Wang, C., & Bai, J. (2021). Cardiotocography signal abnormality classification using time-frequency features and Ensemble Cost-sensitive SVM classifier. *Computers in Biology and Medicine*, *130*, 104218.

41. Bai, J., Lu, Y., Lo, A., Zhao, J., & Zhang, H. (2020). PITX2 upregulation increases the risk of chronic atrial fibrillation in a dose-dependent manner by modulating IKs and ICaL—insights from human atrial modelling. *Annals of translational medicine*, *8*(5).

42. Bai, J., Lu, Y., & Zhang, H. (2020). In silico study of the effects of anti-arrhythmic drug treatment on sinoatrial node function for patients with atrial fibrillation. *Scientific reports*, *10*(1), 305.

43. Lo, A. C. Y., Bai, J., Gladding, P. A., Fedorov, V. V., & Zhao, J. (2020). Afterdepolarizations and abnormal calcium handling in atrial myocytes with modulated SERCA uptake: a sensitivity analysis of calcium handling channels. Philosophical transactions. Series A, Mathematical, physical, and engineering sciences, 378(2173), 20190557.

44. Bai, J., Lu, Y., Lo, A., Zhao, J., & Zhang, H. (2019). Proarrhythmia in the p. Met207Val PITX2c-linked familial atrial fibrillation-insights from modeling. *Frontiers in physiology*, *10*, 480906.

45. Liang, C., Wang, K., Li, Q., Bai, J., & Zhang, H. (2019). Influence of the distribution of fibrosis within an area of myocardial infarction on wave propagation in ventricular tissue. Scientific reports, 9(1), 14151.

46. 白杰云, 王宽全, 张恒贵. 基于心脏电生理模型的心律失常机制研究进展. 生物化学与生物物理进展. 2016;43(02):128-140.

47. 白杰云, 谢松君, 王宽全, 袁永峰. 基于虚拟心脏的早期后除极导致室颤的仿真研究. 生物化学与生物物理进展. 2015;42(10):955-961.

48. 刘换岭,白杰云,王宽全,等.酸中毒后室性心律失常仿真研究.生物化学与生物物理进展,2016,43(07):716-724.

会议论文(2019至今)

1. Chen S, Wang H, Long S, et al. Ultrasound Video Segmentation of Pubic Symphysis and Fetal Head for Angle of Progression Measurement[C]//Proceedings of the 6th ACM International Conference on Multimedia in Asia. 2024: 1-8.

2. Wang, Weishan, and Jieyun Bai. "Assessment of Proarrhythmic Risk for Class III Antiarrhythmic Drug in Atrium." *2024 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)*. IEEE, 2024.

3. Jiang J, Wang H, Bai J, et al. Intrapartum Ultrasound Image Segmentation of Pubic Symphysis and Fetal Head Using Dual Student-Teacher Framework with CNN-ViT Collaborative Learning[C]//International conference on medical image computing and computer-assisted intervention. Cham: Springer Nature Switzerland, 2024: 448-458.

4. Luo, Y., Wang, H., Liu, H., Bai, J., Long, S. (2024). An Efficient CRNN Model with the Multi-scale Feature Fusion for Text Recognition from Chinese Medical Reports. In: Kountchev, R., Patnaik, S., Liu, Y., Kountcheva, R. (eds) Multidimensional Signal Processing: Methods and

Applications. 3DIT 2023. Smart Innovation, Systems and Technologies, vol 400. Springer, Singapore.

5. Bai, J., J Kennelly, R Sharma, N Li, VV Fedorov, J Zhao (2024, May). Role of the l-type calcium and funny currents in the shift of leading pacemaker and preferential sinoatrial conduction pathways: a computer model analysis. Heart Rhythm, 2024, 21 (5), S569.

6. Bai, J., Lo, A, Sharma, R, et al (2023, May). Po-01-180 Mechanisms of Pulmonary Arterial Hypertension-induced Atrial Fibrillation in the Right Heart: insights from Multi-scale Models of the Human Atria[J]. Heart Rhythm, 2023, 20(5): S156.

7. A Lo, S Agrawal, S Fong, J Bai, J Zhao (2023, May).Po-01-209 The Mechanisms of Impaired Calcium Handling Underlying the Increased Susceptibility to Atrial Fibrillation in Metabolic Syndrome[J], Heart Rhythm, 2023, 20 (5), S161

8. Feng F, Carlhäll C J, Tan Y, et al. FM-Net: A Fully Automatic Deep Learning Pipeline for Epicardial Adipose Tissue Segmentation[C]//International Workshop on Statistical Atlases and Computational Models of the Heart. Cham: Springer Nature Switzerland, 2023: 88-97.

9. Agrawal S, Ashby J, Bai J, et al. Inherent Atrial Fibrillation Vulnerability in the Appendages Exacerbated in Heart Failure[C]//International Workshop on Statistical Atlases and Computational Models of the Heart. Cham: Springer Nature Switzerland, 2023: 220-229.

10. Kang, X., Zeng, R., Yi, H., Wang, C., Liu, M., Zheng, Z., ... & Bai, J. (2022, September). Prediction of Delivery Mode from Fetal Heart Rate and Electronic Medical Records Using Machine Learning. In *2022 Computing in Cardiology (CinC)* (Vol. 498, pp. 1-4). IEEE.

11. Bai J, Lu Y, Wang H, et al. OC05. 03: Using deep learning algorithms to measure the angle of progression[J]. Ultrasound in Obstetrics & Gynecology, 2022, 60.

12. Bai, J., Zhu, Y., Lo, A., Lu, Y., & Zhao, J. (2020). In Silico Assessment of Genetic Variation in PITX2 Reveals the Molecular Mechanisms of Calcium-Mediated Cellular Triggered Activity in Atrial Fibrillation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual International Conference, 2020, 2353 – 2356.

13. Bai, J., Lu, Y., Sharma, R., & Zhao, J. (2019, September). In Silico Screening of the Key Electrical Remodelling Targets in Atrial Fibrillation-Induced Sinoatrial Node Dysfunction. In *2019 Computing in Cardiology (CinC)* (pp. Page-1). IEEE.

14. Bai, J., Lu, Y., Lo, A. C., & Zhao, J. (2019, September). PITX2 overexpression leads to atrial electrical remodeling linked to atrial fibrillation. In *2019 Computing in Cardiology (CinC)* (pp. Page1-Page4). IEEE.

15. Bai, J., Lu, Y., Song, T., Wang, K., & Zhang, H. (2019, September). In Silico Investigation of the CACNA1C N2091S Mutation in Timothy Syndrome. In *2019 Computing in Cardiology (CinC)* (pp. Page-1). IEEE.