

# 林亦波

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## 研究方向

面向超大规模集成电路设计自动化的建模和优化、深度学习及其应用、异构计算

## 教育经历

|   |                         |
|---|-------------------------|
| 德克萨斯大学奥斯汀分校   | 2013 年 8 月 – 2018 年 5 月 |
| 博士学位, 电子与计算机工程系   |                         |
| 指导老师: David Z. Pan  |                         |
| 博士毕业论文: Bridging Design and Manufacturing Gap through Machine Learning and Machine-Generated Layout |                         |
| 上海交通大学  | 2009 年 9 月 – 2013 年 6 月 |
| 学士学位, 微电子学院   |                         |

## 工作经历

|   |                         |
|---|-------------------------|
| 北京大学 (Peking University)                    | 2019 年 7 月至今            |
| 助理教授  |                         |
| 集成电路学院设计自动化与计算系统系 (自 2021 年 11 月)           |                         |
| 信息科学技术学院高能计算与应用中心                           |                         |
| 德克萨斯大学奥斯汀分校 (University of Texas at Austin) | 2018 年 6 月 – 2019 年 6 月 |
| 博士后   |                         |

## 授课经历

|    |              |                    |
|----|--------------|--------------------|
| 主讲 | 集成电路工程算法     | 研究生课程, 2023-2024 年 |
| 主讲 | 设计自动化与计算系统   | 研究生课程, 2022-2024 年 |
| 主讲 | 芯片设计自动化与智能优化 | 本科生课程, 2021-2024 年 |
| 主讲 | 计算概论 B       | 本科生课程, 2020-2022 年 |

## 奖项及荣誉

|                                     |               |        |
|-------------------------------------|---------------|--------|
| 荣誉提名论文 (×2)                         | ISED          | 2025 年 |
| 最佳论文提名                              | ASPDAC        | 2025 年 |
| 最佳论文提名                              | ICCAD         | 2024 年 |
| 最佳论文 & 荣誉提名论文                       | ISED          | 2024 年 |
| 青年科技奖 (Early Career Award, 每年仅 1 位) | 中国计算机学会集成电路专委 | 2023 年 |
| 首届最佳审稿人奖                            | ICCAD         | 2023 年 |
| 最佳论文 (4/205)                        | DATE          | 2023 年 |
| 最佳论文 (4/249)                        | DATE          | 2022 年 |
| 最佳论文提名                              | ICCAD         | 2022 年 |

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| 最佳论文 (2/3495, 4 年)                     | TCAD                          | 2021 年 |
| 最佳论文                                   | ISPD                          | 2020 年 |
| 最佳论文提名                                 | ASPDAC                        | 2020 年 |
| 最佳论文 (1/201) & 提名 (5/201)              | DAC                           | 2019 年 |
| 最佳论文提名                                 | ISPD                          | 2019 年 |
| 首届最佳论文                                 | Integration, the VLSI Journal | 2018 年 |
| Franco Cerrina Memorial 最佳学生论文         | SPIE                          | 2016 年 |
| A. Richard Newton Young Student Fellow | DAC                           | 2014 年 |

## 学术服务

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### 执行委员会成员

- 大会共同主席, ACM/IEEE International Symposium on Machine Learning for CAD (MLCAD), 2025 年
- 程序共同主席, ACM/IEEE International Symposium on Machine Learning for CAD (MLCAD), 2024 年
- 圆桌论坛主席, IEEE International Symposium of Electronics Design Automation (ISED), 2023 年–2024 年
- 财务主席, ACM/IEEE Workshop on Machine Learning for CAD (MLCAD), 2021 年–2023 年

### 期刊编委

- 副编辑, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), 2024 年至今
- 副编辑, ACM Transaction on Design Automation of Electronic Systems (TODAES), 2024 年至今
- 副编辑, Elsevier Integration, the VLSI Journal (Integration), 2024 年至今
- 客座编辑, ACM Transaction on Design Automation of Electronic Systems (TODAES) Special Issue on MLCAD, 2024 年
- 客座编辑, ACM Transaction on Design Automation of Electronic Systems (TODAES) Special Issue on MLCAD, 2022 年

### 赛题主席

- 赛题主席, 集成电路 EDA 设计精英挑战赛, 2021 年–2023 年

### 技术程序委员会成员

- ACM/IEEE Design Automation Conference (DAC): 2020
- IEEE/ACM International Conference on Computer-Aided Design (ICCAD): 2018 – 2021, 2023
- Design, Automation and Test in Europe Conference (DATE): 2025
- IEEE International Conference on Computer Design (ICCD): 2019
- IEEE/ACM Asia and South Pacific Design Automation Conference (ASPDAC): 2021 – 2022
- ACM International Symposium on Physical Design (ISPD): 2020, 2025
- ACM/IEEE Workshop on Machine Learning for CAD (MLCAD): 2021

- ACM Great Lakes Symposium on VLSI (GLVLSI): 2024
- Workshop on Synthesis And System Integration of Mixed Information technologies (SASIMI): 2021
- IEEE Electron Devices Technology and Manufacturing Conference (EDTM): 2021
- IEEE International Conference on Artificial Intelligence Circuits and Systems (AICAS): 2022.

#### 期刊审稿人

- IEEE Transaction on Computer-Aided Design of Integrated Circuits and Systems (TCAD)
- IEEE Transactions on Computers (TC)
- ACM Transaction on Design Automation of Electronic Systems (TODAES)
- SPIE Journal of Micro/Nanolithography, MEMS, and MOEMS (JM3)
- Elsevier, Integration, the VLSI Journal (Integration)

#### 其他志愿服务

- ACM SIGDA 网站管理负责人, 2021 年至今

### 10 篇代表性论文

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按时间倒序排列。标 \* 表示通讯作者。

1. Yifan Chen, Zaiwen Wen, Yun Liang and **Yibo Lin\***, “[Stronger Mixed-Size Placement Backbone Considering Second-Order Information](#)”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), San Francisco, CA, Oct 29-31, 2023.
2. Haoyi Zhang, Xiaohan Gao, Haoyang Luo, Jiahao Song, Xiyuan Tang, Junhua Liu, **Yibo Lin\***, Runsheng Wang and Ru Huang, “[SAGERoute: Synergistic Analog Routing Considering Geometric and Electrical Constraints with Manual Design Compatibility](#)”, IEEE/ACM Proceedings Design, Automation and Test in Europe (DATE), Antwerp, Belgium, Apr 17-19, 2023. (**Best Paper Award**)
3. Jing Mai, Jiarui Wang, Zhixiong Di and **Yibo Lin\***, “[Multi-Electrostatic FPGA Placement Considering SLICEL-SLICEM Heterogeneity, Clock Feasibility, and Timing Optimization](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Sep, 2023.
4. Zizheng Guo, Tsung-Wei Huang and **Yibo Lin\***, “[Accelerating Static Timing Analysis using CPU-GPU Heterogeneous Parallelism](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Jun, 2023.
5. Qipan Wang, Xiaohan Gao, **Yibo Lin\***, Runsheng Wang and Ru Huang, “[DeePEB: A Neural Partial Differential Equation Solver for Post Exposure Baking Simulation in Lithography](#)”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), San Diego, CA, Nov 01-03, 2022. (**Best Paper Nomination**)
6. Zizheng Guo and **Yibo Lin\***, “[Differentiable-Timing-Driven Global Placement](#)”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Jul 10-14, 2022.
7. Siting Liu, Peiyu Liao, Zhitang Chen, Wenlong Lv, **Yibo Lin\*** and Bei Yu\*, “[FastGR: Global Routing on CPU-GPU with Heterogeneous Task Graph Scheduler](#)”, IEEE/ACM Proceedings Design, Automation and Test in Europe (DATE), Antwerp, Belgium, Mar 14-23, 2022. (**Best Paper Award**)

8. Zizheng Guo, Jing Mai and **Yibo Lin\***, “[Ultrafast CPU/GPU Kernels for Density Accumulation in Placement](#)”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Dec 05-09, 2021.
9. Zizheng Guo, Tsung-Wei Huang and **Yibo Lin\***, “[A Provably Good and Practically Efficient Algorithm for Common Path Pessimism Removal in Large Designs](#)”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Dec 05-09, 2021.
10. **Yibo Lin\***, Zixuan Jiang, Jiaqi Gu, Wuxi Li, Shounak Dhar, Haoxing Ren, Bruce Khailany and David Z. Pan, “[DREAMPlace: Deep Learning Toolkit-Enabled GPU Acceleration for Modern VLSI Placement](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Apr, 2021. (**Best Paper Award**)

## 发明专利列表

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- [P18] 吴恒, 卢浩然, 江循, 孙嘉诚, 王润声, **林亦波**, 黄如, “半导体结构的制备方法、半导体结构、器件及设备”, 中国专利, CN2024101785421, Feb 09, 2024. (submitted)
- [P17] **林亦波**, 郭资政, 张作栋, 江循, 王润声, 黄如, “电路门级逻辑仿真方法、装置、计算机设备和存储介质”, 中国专利, CN2023112735027, Jan 09, 2024. (submitted)
- [P16] 余备, 廖培宇, **林亦波**, “一种基于 MoreauEnvelope 近似线长模型的大规模解析布局方法”, 中国专利, CN2023111300780, Nov 28, 2023. (submitted)
- [P15] 王润声, 张作栋, **林亦波**, 黄如, “一种基于解析模型的晶体管老化应力计算方法”, 中国专利, CN202310843291X, Oct 13, 2023. (submitted)
- [P14] **林亦波**, 高笑涵, 张昊懿, 王润声, 黄如, “一种多驱动能力的集成电路标准单元版图迁移的方法”, 中国专利, CN2023101249631, Mar 28, 2023.
- [P13] **林亦波**, 王启盼, 王润声, 黄如, “一种集成电路微带线传输线自动化分析设计方法”, 中国专利, CN2023100496576, Mar 17, 2023.
- [P12] **林亦波**, 郭资政, 谷丰, “一种 GPU 加速构建最小直角斯坦纳树的芯片布线方法”, 中国专利, CN2022112858018, Jan 03, 2023. (submitted)
- [P11] **林亦波**, 高笑涵, 张昊懿, 王润声, 黄如, “可处理电学和几何约束的模拟电路布线自动化方法及系统”, 中国专利, CN2022114229951, Dec 20, 2022.
- [P10] 郭资政, **林亦波**, 黄琮蔚, “一种集成电路静态时序分析中的路径分析方法”, 中国专利, CN2021103772507, Oct 18, 2022. (submitted)
- [P9] **林亦波**, 郭资政, “一种可微分时序驱动的芯片布局优化方法”, 中国专利, CN2022107930171, Aug 05, 2022.
- [P8] **林亦波**, 张昊懿, 高笑涵, 王润声, 黄如, “一种用于模拟电路版图布线的交互式编辑方法及工具”, 中国专利, CN2022100363194, May 17, 2022.
- [P7] **林亦波**, 麦景, “基于多电场模型的时钟驱动 FPGA 芯片全局布局方法”, 中国专利, CN2022102058942, Apr 12, 2022.
- [P6] **林亦波**, 张作栋, 郭资政, 王润声, 黄如, “一种老化及涨落感知的动态时序分析方法”, 中国专利, CN2021115414669, Apr 5, 2022. (submitted)
- [P5] **林亦波**, 张作栋, 郭资政, 王润声, 黄如, “一种基于事件传播的动态时序分析方法”, 中国专利, CN2021109930951, Dec 24, 2021.

- [P4] 林亦波, 郭资政, 黄琮蔚, “一种 GPU 加速计算的集成电路无悲观路径分析方法”, 中国专利, CN2021110703249, Dec 24, 2021.
- [P3] 麦景, 郭资政, 林亦波, “一种集成电路设计中器件密度分布的计算方法”, 中国专利, CN2021105506486, Aug 27, 2021.
- [P2] 高笑涵, 林亦波, 刘鸣杰, 潘志刚, “一种交互式模拟电路版图编辑方法及系统”, 中国专利, CN2021101747163, Jun 18, 2021.
- [P1] 郭资政, 黄琮蔚, 林亦波, “一种 GPU 加速计算的集成电路静态时序分析方法”, 中国专利, CN2020111436325, Jan 22, 2021.

## 著作及论文列表

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### 书籍章节

- [B3] Yibo Lin, Zizheng Guo and Jing Mai, “[Deep Learning Framework for Placement](#)”, Machine Learning Applications in Electronic Design Automation, Springer, 2023, edited by Haoxing Ren and Jiang Hu. (**Invited Book Chapter**)
- [B2] Haoyu Yang, Yibo Lin and Bei Yu, “[Machine Learning for Mask Synthesis and Verification](#)”, Machine Learning Applications in Electronic Design Automation, Springer, 2023, edited by Haoxing Ren and Jiang Hu. (**Invited Book Chapter**)

### 会议及期刊论文 (标 \* 表示通讯作者)

论文成果包括: DAC (29 篇), ICCAD (16 篇), IEEE TCAD (28 篇), DATE (15 篇), ...

- [J194] Siting Liu, Ziyi Wang, Fangzhou Liu, Yibo Lin, Bei Yu\* and Martin Wong, “[Sign-off Timing Considerations via Concurrent Routing Topology Optimization](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), 2025. (accepted)
- [J193] Yuxiang Zhao, Zhuomin Chai, Xun Jiang, Yibo Lin\*, Runsheng Wang and Ru Huang, “[PDNNet: PDN-Aware GNN-CNN Heterogeneous Network for Dynamic IR Drop Prediction](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), 2025. (accepted)
- [J192] Zhenkun Lin, Genggeng Liu\*, Xing Huang, Yibo Lin, Jixin Zhang, Wenhao Liu and Ting-Chi Wang, “[A Unified Deep Reinforcement Learning Approach for Constructing Rectilinear and Octilinear Steiner Minimum Tree](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), 2025. (accepted)
- [J191] Bingyang Liu, Haoyi Zhang, Xiaohan Gao, Zichen Kong, Xiyuan Tang, Yibo Lin\*, Runsheng Wang and Ru Huang, “[LayoutCopilot: An LLM-powered Multi-agent Collaborative Framework for Interactive Analog Layout Design](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), 2025. (accepted)
- [J190] Rui Guo, Haoran Lu, Jiacheng Sun, Xun Jiang, Lining Zhangm, Ming Li, Yibo Lin, Runsheng Wang, Heng Wu\* and Ru Huang, “[Design Optimization of Flip FET Standard Cells With Dual-Sided Pins for Ultimate Scaling](#)”, IEEE Transactions on Electron Devices (TED), 2025. (accepted)
- [J189] Jingchen Zhu, Chenhao Xue, Yiqi Chen, Zhao Wang, Chen Zhang, Yu Shen, Yifan Chen, Zekang Cheng, Yu Jiang, Tianqi Wang, Yibo Lin, Wei Hu, Bin Cui, Runsheng Wang, Yun Liang and Guangyu Sun\*, “[Theseus: Exploring Efficient Wafer-Scale Chip Design for Large](#)

- [Language Models](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), 2025. (accepted)
- [C188] Yuxiang Zhao, Zhuomin Chai, Xun Jiang, Qiang Xu, Runsheng Wang and **Yibo Lin\***, “DeepLayout: Learning Neural Representations of Circuit Placement Layout”, International Conference on Machine Learning (ICML), Vancouver, Canada, Jul 13-19, 2025. (accepted)
- [C187] Lijie Zeng, Jiatai Sun, Xiao Wu, Dan Niu, Tianshi Wang, **Yibo Lin**, Zuochang Ye and Zhou Jin\*, “G-SpNN: GPU-Accelerated Passivity Enforcement for S-Parameter Modeling with Neural Networks”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Jun 22-25, 2025. (accepted)
- [C186] Ziyang Yu, Peng Xu, Zixiao Wang, Binwu Zhu, Qipan Wang, **Yibo Lin**, Runsheng Wang, Bei Yu\* and Martin Wong, “SDM-PEB: Spatial-Depthwise Mamba for Enhanced Post-Exposure Bake Simulation”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Jun 22-25, 2025. (accepted)
- [C185] Zizheng Guo, Yanqing Zhang, Runsheng Wang, **Yibo Lin** and Haoxing Ren, “GEM: GPU-Accelerated Emulator-Inspired RTL Simulation”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Jun 22-25, 2025. (accepted)
- [C184] Xun Jiang, Haoran Lu, Yuxuan Zhao, Jiarui Wang, Zizheng Guo, Heng Wu, Bei Yu, Sung Kyu Lim, Runsheng Wang, Ru Huang and **Yibo Lin\***, “A Systematic Approach for Multi-Objective Double-Side Clock Tree Synthesis”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Jun 22-25, 2025. (accepted)
- [C183] Jiarui Wang, Yanjing Liu and **Yibo Lin\***, “Synergistic Die-Level Router for Multi-FPGA System with Time-Division Multiplexing Optimization”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Jun 22-25, 2025. (accepted)
- [C182] Yifan Chen, Jing Mai, Zuodong Zhang and **Yibo Lin\***, “RUPlace: Optimizing Routability via Unified Placement and Routing Formulation”, ACM/IEEE Design Automation Conference (DAC), San Francisco, CA, Jun 22-25, 2025. (accepted)
- [C181] Haoyi Zhang, Shizhao Sun, **Yibo Lin**, Runsheng Wang and Jiang Bian, “[AnalogXpert: Automating Analog Topology Synthesis by Incorporating Circuit Design Expertise into Large Language Models](#)”, IEEE/ACM International Symposium of EDA (ISEDA), Hong Kong, May 9-12, 2025.
- [C180] Yufan Du, Zizheng Guo, Yang Hsu, Zhili Xiong, Seunggeun Kim, David Z. Pan, Runsheng Wang and **Yibo Lin\***, “Addressing Continuity and Expressivity Limitations in Differentiable Physical Optimization: A Case Study in Gate Sizing”, IEEE/ACM International Symposium of EDA (ISEDA), Hong Kong, May 9-12, 2025. (**Honorable Mention Paper Award**)
- [C179] Kairong Guo and **Yibo Lin\***, “Multi-Row Standard Cell Layout Synthesis with Enhanced Scalability”, IEEE/ACM International Symposium of EDA (ISEDA), Hong Kong, May 9-12, 2025.
- [C178] Qipan Wang, **Yibo Lin\***, Runsheng Wang and Ru Huang, “ATSim3.5D: A Multiscale Thermal Simulator for 3.5D-IC Systems based on Nonlinear Multigrid Method”, IEEE/ACM International Symposium of EDA (ISEDA), Hong Kong, May 9-12, 2025. (**Honorable Mention Paper Award**)

- [C177] Chenhao Xue, Yi Ren, Jinwei Zhou, Kezhi Li, Chen Zhang, **Yibo Lin**, Lining Zhang, Qiang Xu and Guangyu Sun\*, “DOMAC: Differentiable Optimization for High-Speed Multipliers and Multiply-Accumulators”, IEEE/ACM International Symposium of EDA (ISEDA), Hong Kong, May 9-12, 2025.
- [C176] Yi Ren, Chenhao Xue, Jiaying Zhang, Chen Zhang, Qiang Xu, **Yibo Lin** and Guangyu Sun\*, “DiffuSE: Cross-Layer Design Space Exploration of DNN Accelerator via Diffusion-Driven Optimization”, IEEE/ACM International Symposium of EDA (ISEDA), Hong Kong, May 9-12, 2025.
- [C175] Haoran Lu, Xun Jiang, Yanbang Chu, Ziqiao Xu, Rui Guo, Wanyue Peng, **Yibo Lin**, Runsheng Wang, Heng Wu\* and Ru Huang, “A Tale of Two Sides of Wafer: Physical Implementation and Block-Level PPA on Flip FET with Dual-sided Signals”, IEEE/ACM Proceedings Design, Automation and Test in Europe (DATE), Lyon, France, Mar 31, 2025.
- [C174] Tianxiang Zhu, Qipan Wang, **Yibo Lin**\*, Runsheng Wang and Ru Huang, “MORE-Stress: Model Order Reduction based Efficient Numerical Algorithm for Thermal Stress Simulation of TSV Arrays in 2.5D/3D IC”, IEEE/ACM Proceedings Design, Automation and Test in Europe (DATE), Lyon, France, Mar 31, 2025.
- [C173] Xizhe Shi, Zizheng Guo, **Yibo Lin**\*, Runsheng Wang and Ru Huang, “Handling Latch Loops in Timing Analysis with Improved Complexity and Divergent Loop Detection”, IEEE/ACM Proceedings Design, Automation and Test in Europe (DATE), Lyon, France, Mar 31, 2025.
- [C172] Haikang Diao, Haoyi Zhang, Jiahao Song, Haoyang Luo, **Yibo Lin**, Runsheng Wang, Yuan Wang and Xiyuan Tang\*, “SEGA-DCIM: Design Space Exploration-Guided Automatic Digital CIM Compiler with Multiple Precision Support”, IEEE/ACM Proceedings Design, Automation and Test in Europe (DATE), Lyon, France, Mar 31, 2025.
- [C171] Jing Mai, Chunyuan Zhao, Zuodong Zhang, Zhixiong Di, **Yibo Lin**\*, Runsheng Wang and Ru Huang, “LEGALM: Efficient Legalization for Mixed-Cell-Height Circuits with Linearized Augmented Lagrangian Method”, ACM International Symposium on Physical Design (ISPD), Austin, TX, Mar 16-19, 2025.
- [J170] Xun Jiang, Jiarui Wang, Jing Mai, Zhixiong Di and **Yibo Lin**\*, “[A Robust FPGA Router With Optimization of High-Fanout Nets and Intra-CLB Connections](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Mar, 2025.
- [J169] Yuxuan Zhao, Peiyu Liao, Siting Liu, Jiayi Jiang, **Yibo Lin** and Bei Yu\*, “[Analytical Heterogeneous Die-to-Die 3D Placement With Macros](#)”, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), Feb, 2025.
- [C168] Che Chang, Boyang Zhang, Cheng-Hsiang Chiu, Dian-Lun Lin, Yi-Hua Chung, Wan-Luan Lee, Zizheng Guo, **Yibo Lin** and Tsung-Wei Huang\*, “[PathGen: An Efficient Parallel Critical Path Generation Algorithm](#)”, IEEE/ACM Asia and South Pacific Design Automation Conference (ASPDAC), Tokyo, Japan, Jan, 2025. (**Best Paper Nomination**)
- [C167] Boyang Zhang, Che Chang, Cheng-Hsiang Chiu, Dian-Lun Lin, Yang Sui, Chih-Chun Chang, Yi-Hua Chung, Wan Luan Lee, Zizheng Guo, **Yibo Lin** and Tsung-Wei Huang\*, “[iTAP: An Incremental Task Graph Partitioner for Task-parallel Static Timing Analysis](#)”, IEEE/ACM Asia and South Pacific Design Automation Conference (ASPDAC), Tokyo, Japan, Jan, 2025.



- [C166] Zizheng Guo, **Yibo Lin\***, Runsheng Wang and Ru Huang, “[Analyzing Timing in Shorter Time: A Journey through Heterogeneous Parallelism for Static Timing Analysis](#)”, IEEE International Conference on Solid-State and Integrated Circuit Technology (ICSICT), Zhuhai, China, Oct 22-25, 2024. (**Invited paper**)
- [J165] Wenshuo Yue, Teng Zhang, Zhaokun Jing, Kai Wu, Yuxiang Yang, Zhen Yang, Yongqin Wu, Weihai Bu, Kai Zheng, Jin Kang, **Yibo Lin**, Yaoyu Tao, Bonan Yan\*, Ru Huang and Yuchao Yang\*, “[A scalable universal Ising machine based on interaction-centric storage and compute-in-memory](#)”, Nature Electronics, Oct, 2024.
- [C164] Qipan Wang, Xueqing Li, Tianyu Jia, **Yibo Lin\***, Runsheng Wang and Ru Huang, “AT-Place2.5D: Analytical Thermal-Aware Chiplet Placement Framework for Large-Scale 2.5D-IC”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), New Jersey, Oct, 2024.
- [C163] Chunyuan Zhao, Zizheng Guo, Rui Wang, Zaiwen Wen, Yun Liang and **Yibo Lin\***, “HeLEM-GR: Heterogeneous Global Routing with Linearized Exponential Multiplier Method”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), New Jersey, Oct, 2024.
- [C162] Zizheng Guo, Zuodong Zhang, Wuxi Li, Tsung-Wei Huang, Xizhe Shi, Yufan Du, **Yibo Lin\***, Runsheng Wang and Ru Huang, “HeteroExcept: A CPU-GPU Heterogeneous Algorithm to Accelerate Exception-aware Static Timing Analysis”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), New Jersey, Oct, 2024.
- [C161] Xiaohan Gao, Haoyi Zhang, Bingyang Liu, **Yibo Lin\***, Runsheng Wang and Ru Huang, “Joint Placement Optimization for Hierarchical Analog/Mixed-Signal Circuits”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), New Jersey, Oct, 2024.
- [C160] Yufan Du, Zizheng Guo, **Yibo Lin\***, Runsheng Wang and Ru Huang, “Fusion of Global Placement and Gate Sizing with Differentiable Optimization”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), New Jersey, Oct, 2024. (**Best Paper Nomination**)
- [C159] Tianxiang Zhu, Qipan Wang, **Yibo Lin\***, Runsheng Wang and Ru Huang, “FaStTherm: Fast and Stable Full-Chip Transient Thermal Predictor Considering Nonlinear Effects”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), New Jersey, Oct, 2024.
- [C158] Jing Mai, Zuodong Zhang, **Yibo Lin\***, Runsheng Wang and Ru Huang, “MORPH: More Robust ASIC Placement for Hybrid Region Constraint Management”, IEEE/ACM International Conference on Computer-Aided Design (ICCAD), New Jersey, Oct, 2024.
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论文成果包括: DAC (7 篇), ICCAD (7 篇), IEEE TCAD (10 篇), DATE (1 篇), ...

- [J52] Hao Chen, Mingjie Liu, Biying Xu, Keren Zhu, Xiyuan Tang, Shaolan Li, **Yibo Lin**, Nan Sun and David Z. Pan\*, “[MAGICAL: An Open-Source Fully Automated Analog IC Layout System from Netlist to GDSII](#)”, IEEE Design & Test, Apr, 2021.
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- [C49] Mohamed Baker Alawieh, Wuxi Li, **Yibo Lin**, Love Singhal, Mahesh Iyer and David Z. Pan\*, “High-Definition Routing Congestion Prediction for Large-Scale FPGAs”, IEEE/ACM Asia and South Pacific Design Automation Conference (ASPDAC), Jan 13-16, 2020.
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