BEI YU

Assistant Professor ⋄ Department of Computer Science & Engineering
Rm 914, Ho Sin Hang Engineering Building ⋄ The Chinese University of Hong Kong
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EDUCATION

University of Texas at Austin, TX, USA   *Aug. 2014*
Ph.D., Department of Electrical and Computer Engineering

Tsinghua University, Beijing, P.R.China   *Jul. 2010*
M.S., Department of Computer Science and Technology

UESTC, Chengdu, P.R.China   *Jul. 2007*
B.S., Information and Compute Science

EXPERIENCE

The Chinese University of Hong Kong, NT, Hong Kong   *Aug. 2015 – present*
Assistant Professor, CSE Department

University of Texas at Austin, TX, USA   *Aug. 2014 – July 2015*
Postdoctoral Researcher

Oracle Inc., TX, USA   *May 2013 – Aug. 2013*
Summer Intern

Mentor Graphics, TX, USA   *May 2011 – Aug. 2011*
Summer Intern

SELECTED AWARDS AND HONORS

Best Paper Award	ICCAD	2013
Best Paper Award	ASPDAC	2012
Best Paper Award Nomination	DAC	2014
Best Paper Award Nomination	ASPDAC	2013
Best Paper Award Nomination	ICCAD	2011
Outstanding Dissertation Award	EDAA	2014
SPIE Optics and Photonics Education Scholar	SPIE	2013
IBM Ph.D. Scholarship	IBM	2012
2nd Place Award in CAD Contest	ICCAD	2013
2nd Place Award in CAD Contest	ICCAD	2012
Outstanding Students Abroad Award	China Scholarship Council	2014

SELECTED PROFESSIONAL SERVICE

TPC Member

- IEEE/ACM Asia and South Pacific Design Automation Conference (ASPDAC), 2016.

- IEEE International Symposium on Quality Electronic Design (ISQED), 2016.

- International Conference on VLSI Design, 2016.

- IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SOC), 2015.

- International Conference on Computer-Aided Design and Computer Graphics (CAD/Graphics), 2015.

Session (Co-)Chair

- Session "Design for Directed Self-Assembly", ASPDAC, 2016.
- Session "Power and Temperature-Aware Design", GLSVLSI, 2015.
- Session "Layout and Optimization and Verification II", SPIE Advanced Lithography, 2015.

SELECTED PUBLICATIONS

Books / Book Chapters

- **Bei Yu** and David Z. Pan, "Design for Manufacturability with Advanced Lithography", Springer. (to appear)
- **Bei Yu** and David Z. Pan, "Layout Decomposition for Triple Patterning", in Encyclopedia of Algorithms, M.-Y. Kao eds., Springer.

Selected Journal Papers

- **Bei Yu**, Xiaoqing Xu, Jhih-Rong Gao, Yibo Lin, Zhuo Li, Charles Alpert and David Z. Pan, "Methodology for Standard Cell Compliance and Detailed Placement for Triple Patterning Lithography", IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), vol.34, no.5, pp.726-739, 2015.
- **Bei Yu**, Kun Yuan, Duo Ding and David Z. Pan, "Layout Decomposition for Triple Patterning Lithography", IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), vol.34, no.3, pp.433-446, 2015.
- **Bei Yu**, Jhih-Rong Gao, Duo Ding, Xuan Zeng and David Z. Pan, "Accurate Lithography Hotspot Detection based on PCA-SVM Classifier with Hierarchical Data Clustering", Journal of Micro/Nanolithography, MEMS, and MOEMS (JM3), vol.14, no.1, 011003, 2015.
- **Bei Yu**, Subhendu Roy, Jhih-Rong Gao and David Z. Pan, "Triple-patterning lithography (TPL) layout decomposition using end-cutting", Journal of Micro/Nanolithography, MEMS, and MOEMS (JM3), vol.14, no.1, 011002, 2015.
- David Z. Pan, **Bei Yu** and Jhih-Rong Gao, "Design for Manufacturing with Emerging Nanolithography", IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (TCAD), vol.32, no.10, pp.1453-1472, 2013. (**Keynote Paper**)

Selected Conference Papers

- **Bei Yu**, David Z. Pan, Tetsuaki Matsunawa and Xuan Zeng, "Machine Learning and Pattern Matching in Physical Design", IEEE/ACM Asian and South Pacific Design Automation Conference (ASPDAC), pp.286–293, Japan, Jan. 19–22, 2015. (**Invited Paper**)
- **Bei Yu**, Xiaoqing Xu, Jhih-Rong Gao and David Z. Pan, "Methodology for Standard Cell Compliance and Detailed Placement for Triple Patterning Lithography", IEEE/ACM International Conference on Computer-Aided Design (ICCAD), pp.349–356, San Jose, CA, Nov. 18–21, 2013. (**William J. McCalla Best Paper Award**)
- **Bei Yu**, Jhih-Rong Gao and David Z. Pan, "L-Shape based Layout Fracturing for E-Beam Lithography", IEEE/ACM Asia and South Pacific Design Automation Conference (ASPDAC), pp.249–254, Japan, Jan. 22–25, 2013. (**Best Paper Award Nomination**)
- Duo Ding, **Bei Yu**, Joydeep Ghosh and David Z. Pan, "EPIC: Efficient Prediction of IC Manufacturing Hotspots With A Unified Meta-Classification Formulatio", IEEE/ACM Asia and South Pacific Design Automation Conference (ASPDAC), pp.263–270, Sydney, Australia, Jan. 30–Feb. 3, 2012. (**Best Paper Award**)
- **Bei Yu**, Kun Yuan, Boyang Zhang, Duo Ding, David Z. Pan, "Triple Patterning Lithography Layout Decomposition", IEEE/ACM International Conference on Computer-Aided Design (ICCAD), pp.1–8, San Jose, CA, Nov. 2011. (**William J. McCalla Best Paper Award Nomination**)