**Yunfan Wang**

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**Summary**

PhD ECE student interested in RF and THz integrated circuits, systems, and algorithm

(Advisor: David Blaauw)

**Education**

* **University of Michigan**, Ann Arbor, Ph. D., Electrical and computer engineering *Since 08/2021*
* **Tsinghua University**, Beijing, China, M. S., Electronic engineering (3.8/4.0) *06/2021*
* **Tsinghua University**, Beijing, China, B. S., Physics (4.0/4.0) *07/2018*

**Honors & Awards**

* **Outstanding Bachelors Thesis Award of Tsinghua University**  *07/2018*
* **Outstanding Graduates of Tsinghua Universit**y *07/2018*
* **Special Prize of University Students Physics Competition in China** *06/2015*
* **National Scholarship of China** *09/2015*

**Work Experiences**

* **Graduate Student Research Assistant (GSRA), University of Michigan**  *Since 08/2021*
* Michigan Integrated Circuits Laboratory (MICL) (Advisor: David Blaauw)
* **Teaching assistant (TA), Tsinghua University** *09/2020–02/2021*
* **Student intern, University of California, SanDeigo** (Advisor: Peter Asbeck)*07/2017–09/2017*
* **Research Assistant (RA), Tsinghua University** *07/2016–07/2021*
* Intelligent Microwave Ciruit and System Lab (IMCS) (Advisor: Wenhua Chen)

**Publications**

[1] Chien-Wei Tseng, Zhen Feng, Zichen Fan, Hyochan An, **Yunfan Wang**, Hun-Seok Kim, David Blaauw, “A Low-Power Highly Reconfigurable Analog FIR Filter With 11-Bit Charge-Domain DAC for Narrowband Receivers,” in *IEEE Solid-State Circuits Letters*, vol. 7, pp. 74-77, 2024

[2] **Yunfan Wang**, Steve Young, Demba Komma, Jaechan Lim, Zhen Feng, Zichen Fan, Chien-Wei Tseng, Hun Seok Kim, and David Blaauw, “Global Localization of Energy-Constrained Miniature RF Emitters using Low Earth Orbit Satellites,”. In The 21st ACM Conference on Embedded Networked Sensor Systems (SenSys ’23), November 12–17, 2023, Istanbul, Turkiye.

[3] S. Li, B. Xia, X. Li, **Y. Wang**, X. Liu, and W. Chen, “Analysis and Design of Broadband Balance-Compensated Transformer Baluns for Silicon-Based Millimeter-Wave Circuits,” in *IEEE Transactions on Circuits and Systems I: Regular Papers*, vol. 70, no. 8, pp. 3103-3116, Aug. 2023

[4] Chien-Wei Tseng, Zhen Feng, Zichen Fan, Hyochan An, **Yunfan Wang**, Hun-Seok Kim, and David Blaauw, “A Reconfigurable Analog FIR Filter Achieving −70dB Rejection with Sharp Transition for Narrowband Receivers,” *2023 IEEE Symposium on VLSI Technology and Circuits (VLSI Technology and Circuits)*, Kyoto, Japan, 2023, pp. 1-2.

[5] S. Li, W. Chen, X. Li, and **Y. Wang**, “A 5.1 dBm 127–162 GHz Frequency Sextupler with Broadband Compensated Transformer-Based Baluns in 22nm FD-SOI CMOS,” *2022 IEEE Radio Frequency Integrated Circuits Symposium (RFIC)*, Denver, CO, USA, 2022, pp. 315-318.

[6] **Y. Wang**, W Chen, X Li, J Chen, L Chen, F Huang, S Li, Z Wang, “Highly Efficient Terahertz Beam-Steerable Integrated Radiator Based on Tunable Boundary Conditions,” *IEEE J. Solid-State Circuits*, vol. 57, no. 5, pp. 1314-1331, May,2022.

[7] **Y. Wang**, W. Chen, X. Li, Z. Wang, J. Chen and L. Chen, “A 0.41-THz Coherent Harmonic Radiation Array Based on Mode-dependent Boundaries,” *2021 IEEE International Workshop on Electromagnetics: Applications and Student Innovation Competition (iWEM)*, Guangzhou, China, 2021, pp. 1-3.

[8] Y Wei, X Li, **Y. Wang**, T Hirtz, Z Guo, Y Qiao, T Cui, H Tian, Y Yang, and TL Ren, “Graphene-based multifunctional textile for sensing and actuating” ACS nano 15 (11), 17738-17747, 2021.

[9] X Li, W Chen, P Zhou, **Y. Wang**, F Huang, S Li, J Chen, and Z Feng, “A 250–310 GHz Power Amplifier With 15-dB Peak Gain in 130-nm SiGe BiCMOS Process for Terahertz Wireless System,” in *IEEE Transactions on Terahertz Science and Technology*, vol. 12, no. 1, pp. 1-12, Jan. 2021

[10] X. Li, W. Chen, S. Li, **Y. Wang**, F. Huang, X. Yi, R. Han, and Z. Feng, “A high-efficiency 142-182-GHz SiGe BiCMOS power amplifier with broadband slotline-based power combining technique”, *IEEE J. Solid-State Circuits*, vol. 57, no. 2, pp. 371-384, Feb. 2021.

[11] **Y. Wang**, W. Chen, X. Li, J. Chen, L. Chen, and S. Li, “300-335 GHz highly efficient beam steerable radiator based on tunable boundary conditions”, *IEEE Radio Frequency Integrated Circuits (RFIC)*, Atlanta, GA, USA, Jun. 2021.

[12] **Y. Wang**, W. Chen, X. Li, S. Li, and P. Zhou, “305-325 GHz non-reciprocal isolator based on peak-control gain-boosting magnetless nonreciprocal metamaterials”, *IEEE Radio Frequency Integrated Circuits (RFIC)*, Atlanta, GA, USA, Jun. 2021.

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[14] X. Li, W. Chen, **Y. Wang**, and Z. Feng, “A 160 GHz High Output Power and High DC-to-RF Efficiency Fundamental Oscillator in a 130-nm SiGe BiCMOS Process,” *2020 50th European Microwave Conference (EuMC)*, Utrecht, Netherlands, 2021, pp. 1159-1162

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