

Curriculum Vitae

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 University** *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 Circuit and System Lab (IMCS) (Advisor: Wenhua Chen)

PUBLICATIONS

- [1] **Y. Wang**, *et al.*, “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.
- [2] Chien-Wei Tseng, Zhen Feng, Zichen Fan, Hyochan An, **Yunfan Wang**, Hun-Seok Kim, 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.
- [3] 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.
- [4] **Y. Wang**, *et al.*, “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.
- [5] 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. 2022.
- [6] **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.
- [7] **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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- [8] 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*, early access, 2021.
- [9] **Y. Wang**, W. Chen, and X. Li, "A 210-GHz magnetless nonreciprocal isolator in 130-nm SiGe BiCMOS based on resistor-free unidirectional ring resonators", *IEEE Micro. Wireless Compon. Lett.*, vol. 30, pp.524427, 2020.
- [10] Y. Qiao, **Y. Wang**, and et al. "Multifunctional and high-performance electronic skin based on silver nanowires bridging graphene", *Carbon*, vol. 156, pp.253-260, 2020.
- [11] X. Li, W. Chen, **Y. Wang**, and Z. Feng, "A 160 GHz high output power and high efficiency power amplifier in a 130-nm SiGe BiCMOS Technology", *IEEE Radio Frequency Integrated Circuits (RFIC)*, Los Angeles, CA, USA, Jun. 2020.
- [12] **Y. Wang**, W. Chen, and X. Chen, "Highly linear and magnetless isolator based on weakly-coupled nonreciprocal metamaterials", *IEEE Trans. Microw. Theory and Techn.*, vol. 67, no. 11, 2019.
- [13] X. Li, W. Chen, **Y. Wang**, and Z. Feng, "A 180 GHz high-gain cascode power amplifier in a 130nm SiGe process", *Electronics letters*, 2019.
- [14] Y. Wei, Y. Qiao, C. Jiang, **Y. Wang**, F. Wang, M. Li, and et al, "A wearable skin-like ultra-sensitive artificial graphene throat", *ACS Nano*, vol.13, no.8, pp. 8639-8647, 2019.
- [15] Y. Qiao, **Y. Wang**, He Tian, M. Li, et. al, "Multilayer graphene epidermal electronic skin", *ACS nano*, vol. 12, no. 9, pp. 8839-8846, 2018.
- [16] **Y. Wang**, and W. Chen. "A novel design method of RF lens for long-range wireless power transmission," *IEEE antenna and wireless propagate. lett.* vol. 16, pp. 3159-3162, 2017.