

Publications

1. **Yatao Peng**, Andrea Ruffino, Tsung-Yeh Yang, John Michniewicz, Miguel Fernando Gonzalez-Zalba, Edoardo Charbon, "A Cryo-CMOS Wideband Quadrature Receiver With Frequency Synthesizer for Scalable Multiplexed Readout of Silicon Spin Qubits," in IEEE Journal of Solid-State Circuits, vol. 57, no. 8, pp. 2374-2389, Aug. 2022, doi: [10.1109/JSSC.2022.3174605](https://doi.org/10.1109/JSSC.2022.3174605).
2. **Yatao Peng**, Andrea Ruffino, Jad Benserhir, Edoardo Charbon, "A Cryogenic SiGe BiCMOS Hybrid Class B/C Mode-Switching VCO Achieving 201dBc/Hz Figure-of-Merit and 4.2GHz Frequency Tuning Range," 2022 IEEE International Solid-State Circuits Conference (ISSCC), 2022, pp. 364-366, doi: [10.1109/ISSCC42614.2022.9731542](https://doi.org/10.1109/ISSCC42614.2022.9731542).
3. Andrea Ruffino, Tsung-Yeh Yang, John Michniewicz, **Yatao Peng**, Edoardo Charbon, Miguel Fernando Gonzalez-Zalba, "A cryo-CMOS chip that integrates silicon quantum dots and multiplexed dispersive readout electronics," Nature Electronics, vol 5, no. 1, pp. Jan. 2021, doi.org/10.1038/s41928-021-00687-6.
4. **Yatao Peng**, Andrea Ruffino, Edoardo Charbon, "A Cryogenic Broadband Sub-1-dB NF CMOS Low Noise Amplifier for Quantum Applications," in IEEE Journal of Solid-State Circuits, vol. 56, no. 7, pp. 2040-2053, July 2021, doi: [10.1109/JSSC.2021.3073068](https://doi.org/10.1109/JSSC.2021.3073068).
5. Andrea Ruffino#, **Yatao Peng**#, Tsung-Yeh Yang, John Michniewicz, Miguel Fernando Gonzalez-Zalba, Edoardo Charbon, "13.2 A Fully-Integrated 40-nm 5-6.5 GHz Cryo-CMOS System-on-Chip with I/Q Receiver and Frequency Synthesizer for Scalable Multiplexed Readout of Quantum Dots," 2021 IEEE International Solid-State Circuits Conference (ISSCC), 2021, pp. 210-212, doi: [10.1109/ISSCC42613.2021.9365758](https://doi.org/10.1109/ISSCC42613.2021.9365758). (# **Equally-Credited Authors**)
6. Andrea Ruffino, **Yatao Peng**, Fabio Sebastiano, Masoud Babaie, Edoardo Charbon, "A Wideband Low-Power Cryogenic CMOS Circulator for Quantum Applications," in IEEE Journal of Solid-State Circuits, vol. 55, no. 5, pp. 1224-1238, May 2020, doi: [10.1109/JSSC.2020.2978020](https://doi.org/10.1109/JSSC.2020.2978020).
7. Andrea Ruffino, **Yatao Peng**, Fabio Sebastiano, Masoud Babaie, Edoardo Charbon, "A 6.5-GHz Cryogenic All-Pass Filter Circulator in 40-nm CMOS for Quantum Computing Applications," 2019 IEEE Radio Frequency Integrated Circuits Symposium (RFIC), 2019, pp. 107-110, doi: [10.1109/RFIC.2019.8701836](https://doi.org/10.1109/RFIC.2019.8701836).
8. **Yatao Peng**, Lijun Zhang, Jun Fu, Yudong Wang, "Analysis and Design of a Broadband SiGe HBT Image-Reject Mixer Integrating Quadrature Signal Generator," in IEEE Transactions on Microwave Theory and Techniques, vol. 64, no. 3, pp. 688-698, March 2016, doi: [10.1109/TMTT.2015.2503754](https://doi.org/10.1109/TMTT.2015.2503754).
9. **Yatao Peng**, Lijun Zhang, Jun Fu, Yudong Wang, Yongqing Leng, "Compact Dual-band Bandpass Filter Using Coupled Lines Multimode Resonator," in IEEE Microwave and Wireless Components Letters, vol. 25, no. 4, pp. 235-237, April 2015, doi: [10.1109/LMWC.2015.2400936](https://doi.org/10.1109/LMWC.2015.2400936).