

Stanford



Haotian Su

Ph.D. Student in Electrical Engineering, admitted Autumn 2022

Bio

BIO

Haotian Su is a Ph.D. candidate in Electrical Engineering at Stanford University, co-advised by Prof. Eric Pop and Prof. Shan X. Wang. He received his B.S. in EE from National University of Singapore (2022). His research focuses on developing novel materials and thin films for energy-efficient memories and computing, including magnetic random-access memory (MRAM), oxide transistors, and other nanoscale devices.

EDUCATION AND CERTIFICATIONS

- B.S., National University of Singapore , Electrical Engineering (2022)
- M.S., Stanford University , Electrical Engineering (2025)

LINKS

- Poplab: <https://poplab.stanford.edu/>
- WangGroup: <https://wanggroup.stanford.edu/>
- Google Scholar: <https://scholar.google.com/citations?user=bPqVdqcAAAAJ&hl=en>
- LinkedIn: <https://www.linkedin.com/in/haotian-su-b63b8a1a2/>

Publications

PUBLICATIONS

- **High-Field Breakdown and Thermal Characterization of Indium Tin Oxide Transistors.** *ACS nano*
Su, H., Lee, Y., Pena, T., Fultz-Waters, S., Kang, J., Koroglu, C., Wahid, S., Newcomb, C. J., Song, Y. S., Wong, H. P., Wang, S. X., Pop, E. 2025
- **Thermal Evaluation and Comparison of CAA and GAA Indium Tin Oxide Vertical Channel Transistors**
Song, Y., Kang, J., Gu, H., Su, H., Lee, Y., Wang, S. X., Kwon, J., Wong, H., Pop, E., IEEE
IEEE.2025
- **First Comparative Thermal Evaluation of 2D Semiconductor vs. Silicon Nanosheet Transistors**
Song, Y., Su, H., Pena, T., Persson, A. E. O., Yang, K., Yalon, E., Bennett, R. K. A., Han, Z., Neilson, K., Kang, J., Yang, J. A., Wong, H., Wang, et al
IEEE.2025
- **Enhanced spin-torque efficiency by metal insertion in the Pt/Co/MgO system** *PHYSICAL REVIEW B*
Xue, F., Hwang, W., Klewe, C., Song, M., Su, H., Shafer, P., Tsai, W., Bao, X., Wang, S. X.
2024; 110 (17)
- **Thermal Characterization of Ultrathin MgO Tunnel Barriers.** *Nano letters*
Su, H., Kwon, H., Xue, F., Sato, N., Bhat, U., Tsai, W., Bosman, M., Asheghi, M., Goodson, K. E., Pop, E., Wang, S. X.

2024

- **Thermal optimization of two-terminal SOT-MRAM** *JOURNAL OF APPLIED PHYSICS*

Su, H., Kwon, H., Hwang, W., Xue, F., Koroglu, C., Tsai, W., Asheghi, M., Goodson, K. E., Wang, S. X., Pop, E.

2024; 136 (1)