

Stanford



Heonjoon (Joon) Park

Postdoctoral Scholar, Physics

Bio

HONORS AND AWARDS

- Stanford Science Fellow, Stanford University (2025)
- Hans G. Dehmelt Prize, University of Washington (2023)
- Clean Energy Institute Graduate Fellowship, Clean Energy Institute (2022)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, University of Washington (2025)
- Master of Science, University of Washington (2021)
- Ph.D., University of Washington , Physics (2025)
- B.S., Seoul National University , Physics (2020)

STANFORD ADVISORS

- Zhi-Xun Shen, Postdoctoral Faculty Sponsor

LINKS

- <https://sites.google.com/view/heonjoon-park/home>: <https://sites.google.com/view/heonjoon-park/home>

Publications

PUBLICATIONS

- **Observation of dissipationless fractional Chern insulator** *NATURE PHYSICS*
Park, H., Li, W., Hu, C., Beach, C., Goncalves, M., Mendez-Valderrama, J., Herzog-Arbeitman, J., Taniguchi, T., Watanabe, K., Cobden, D., Fu, L., Bernevig, B., Regnault, et al
2026
- **Local probe of bulk and edge states in a fractional Chern insulator.** *Nature*
Ji, Z., Park, H., Barber, M. E., Hu, C., Watanabe, K., Taniguchi, T., Chu, J. H., Xu, X., Shen, Z. X.
2024; 635 (8039): 578-583
- **Observation of fractionally quantized anomalous Hall effect.** *Nature*
Park, H., Cai, J., Anderson, E., Zhang, Y., Zhu, J., Liu, X., Wang, C., Holtzmann, W., Hu, C., Liu, Z., Taniguchi, T., Watanabe, K., Chu, et al
2023; 622 (7981): 74-79
- **Optical control of integer and fractional Chern insulators** *NATURE*
Holtzmann, W., Li, W., Anderson, E., Cai, J., Park, H., Hu, C., Taniguchi, T., Watanabe, K., Chu, J., Xiao, D., Cao, T., Xu, X.
2026; 649 (8099): 1147-1152

- **Universal Magnetic Phases in Twisted Bilayer MoTe₂** *NANO LETTERS*
Li, W., Redekop, E., Wang Beach, C., Zhang, C., Zhang, X., Liu, X., Holtzmann, W., Hu, C., Anderson, E., Park, H., Taniguchi, T., Watanabe, K., Chu, et al
2025: 18044-18050
- **Microscopic signatures of topology in twisted MoTe₂** *NATURE PHYSICS*
Thompson, E., Chu, K., Mesple, F., Zhang, X., Hu, C., Zhao, Y., Park, H., Cai, J., Anderson, E., Watanabe, K., Taniguchi, T., Yang, J., Chu, et al
2025; 21 (8)
- **Ferromagnetism and topology of the higher flat band in a fractional Chern insulator** *NATURE PHYSICS*
Park, H., Cai, J., Anderson, E., Zhang, X., Liu, X., Holtzmann, W., Li, W., Wang, C., Hu, C., Zhao, Y., Taniguchi, T., Watanabe, K., Yang, et al
2025; 21 (4)
- **Frozen non-equilibrium dynamics of exciton Mott insulators in moiré superlattices** *NATURE MATERIALS*
Deng, S., Park, H., Reimann, J., Peterson, J. M., Blach, D. D., Sun, M., Yan, T., Sun, D., Taniguchi, T., Watanabe, K., Xu, X., Kennes, D. M., Huang, et al
2025; 24 (4): 527-534
- **Direct magnetic imaging of fractional Chern insulators in twisted MoTe₂** *NATURE*
Redekop, E., Zhang, C., Park, H., Cai, J., Anderson, E., Sheekey, O., Arp, T., Babikyan, G., Salters, S., Watanabe, K., Taniguchi, T., Huber, M. E., Xu, et al
2024; 635 (8039): 584-589