



## Tixuan Tan

Ph.D. Student in Physics, admitted Autumn 2023

 Curriculum Vitae available Online

### Publications

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#### PUBLICATIONS

- **Fractional Chern mosaic in supermoiré graphene** *PHYSICAL REVIEW RESEARCH*  
Kwan, Y. H., Tan, T., Devakul, T.  
2025; 7 (3)
- **Variational Wave-Function Analysis of the Fractional Anomalous Hall Crystal.** *Physical review letters*  
Tan, T., May-Mann, J., Devakul, T.  
2025; 135 (3): 036604
- **Fractional Quantum Anomalous Hall Effect in a Singular Flat Band.** *Physical review letters*  
Yang, W., Zhai, D., Tan, T., Fan, F. R., Lin, Z., Yao, W.  
2025; 134 (19): 196501
- **Fractional Quantum Anomalous Hall Effect in a Singular Flat Band** *PHYSICAL REVIEW LETTERS*  
Yang, W., Zhai, D., Tan, T., Fan, F., Lin, Z., Yao, W.  
2025; 134 (19)
- **Magnetic and nematic order of Bose-Fermi mixtures in moiré superlattices of two-dimensional semiconductors** *PHYSICAL REVIEW B*  
Fan, F., Tan, T., Xiao, C., Yao, W.  
2025; 111 (15)
- **Importance of electron-phonon coupling near the electron-liquid to Wigner-crystal transition in two-dimensional atomically thin materials** *PHYSICAL REVIEW B*  
Tan, T., Calvera, V., Kivelson, S. A.  
2024; 110 (24)
- **Designing Topology and Fractionalization in Narrow Gap Semiconductor Films via Electrostatic Engineering.** *Physical review letters*  
Tan, T., Reddy, A. P., Fu, L., Devakul, T.  
2024; 133 (20): 206601
- **Parent Berry Curvature and the Ideal Anomalous Hall Crystal** *PHYSICAL REVIEW X*  
Tan, T., Devakul, T.  
2024; 14 (4)