

Publications since 2018

1. Wenxuan Wang, Gengdong Zhou, Wenlu Lin, Zuo Feng, Miao Liang, Zaizhe Zhang, Min Wu, Le Liu, Kenji Watanabe, Takashi Taniguchi, Wei Yang, Guangyu Zhang, Kaihui Liu, Jinhua Gao, Yang Liu*, Xincheng Xie, Zhida Song* and Xiaobo Lu*, “Correlated Charge Density Wave Insulators in Chirally Twisted Triple Bilayer Graphene”, accepted by *Phys. Rev. Lett.*
2. Mengmeng Wu, Xiao Liu, Renfei Wang, Xi Lin*, and **Yang Liu***, "A high-speed, high-resolution thermometer using surface acoustic wave delay-line", *Rev. Sci. Instrum.* 95, 054903 (2024).
3. Xin Qin, Xingyu Wang, Wenshan Hong, Yuan Li, Huiqian Luo, Shiliang Li*, and **Yang Liu***, “Electronic Phase Propagation Speed in BaFe_2As_2 Revealed by Dilatometry”, *Phys. Rev. Applied* 21, L041003 (2024).
4. Xin Qin, Guoxin Cao, Xingyu Wang, Wenshan Hong, Yuan Li, Huiqian Luo, Shiliang Li, and **Yang Liu***, “An ultra-high-resolution AC dilatometry using fiber-interferometer”, accepted by *Rev. Sci. Instrum.* 95 053905 (2024).
5. Daiqiang Huang, Yang Wang, He Wang*, Jian Wang and **Yang Liu***, “Magneto-optic Kerr Effect Measurement of TbMn_6Sn_6 at mK-Temperature”, *Chinese Physics Letters* 41, 047801 (2024).
6. Xiao Liu, Mengmeng Wu, Renfei Wang, Xinghao Wang, Wenfeng Zhang, Yujiang Dong, Rui-Rui Du, **Yang Liu*** and Xi Lin*, “The Interaction between Surface Acoustic Wave and Quantum Hall Effects”, *Chinese Physics Letters* 41, 047301 (2024).
7. Mengmeng Wu, Xiao Liu, Renfei Wang, Yoon Jang Chung, Adbhut Gupta, K. W. Baldwin, L. N. Pfeiffer, Xi Lin*, **Yang Liu***, “Morphing of Quantum Phases When Hosting Current”, *Phys. Rev. Lett.*, 132, 076501 (2024).
8. Shuai Yuan, Jiaojie Yan, Ke Huang, Zhimou Chen, Haoran Fan, L. N. Pfeiffer, K. W. West, **Yang Liu***, Xi Lin*, “Pseudospin Polarization of Composite Fermions under Uniaxial Strain”, *Phys. Rev. B* 109, L081110 (2024).
9. Wenlu Lin, Xing Fan, Lili Zhao, Yoon Jang Chung, Adbhut Gupta, K. W. Baldwin, L. N. Pfeiffer, Hong Lu, **Yang Liu***, "Metastable Charge Distribution Between Degenerate Landau Levels", *Phys. Rev. B* 109, 035305 (2024).
10. Lili Zhao, Wenlu Lin, Y. J. Chung, Adbhut Gupta, K. W. Baldwin, L. N. Pfeiffer, **Yang Liu***, “Dynamic response of Wigner Crystals”, *Phys. Rev. Lett.* 130, 246401 (2023).
11. Jiaojie Yan, Yijia Wu, Shuai Yuan, Xiao Liu, L. N. Pfeiffer, K. W. West, **Yang Liu***, Hailong Fu, X. C. Xie, Xi Lin*, “Anomalous quantized plateaus in two-dimensional electron gas with gate confinement”, *Nature Communications* 14, 1758 (2023).
12. Huimin Sun, Yizhou Liu, Daiqiang Huang, Yu Fu, Yu Huang, Mengyun He, Xuming Luo, Wenjie Song, **Yang Liu***, Guoqiang Yu, Qing Lin He*, “Nonvolatile zero-field magnetization switching in a single-layer magnetic topological insulator”, *Communication Physics* 6, 222 (2023).
13. Lili Zhao, Wenlu Lin, Xing Fan, Yuanjun Song, Hong Lu*, **Yang Liu***, “High Precision, Low Excitation Capacitance Measurement Methods from 10 mK- to Room-Temperature”, *Review of Scientific Instruments* 93, 053910 (2022).
14. Lili Zhao, Wenlu Lin, Y. J. Chung, K. W. Baldwin, L. N. Pfeiffer, **Yang Liu***, “Finite Capacitive Response at the Quantum Hall Plateau”, *Chinese Physics Letters* 39, 097301 (2022).
15. Yoon Jang Chung, S. Yuan, **Yang Liu***, K. W. Baldwin, K. W. West, M. Shayegan, L. N. Pfeiffer*, “Heterostructure design for high-quality, high-density, GaAs two-dimensional electron system with g-factor tending to zero”, *Appl. Phys. Lett.* 117, 022102 (2020).
16. Ke Huang, Pengjie Wang, L. N. Pfeiffer, K. W. West, K. W. Baldwin, **Yang Liu***, and Xi Lin*, “Resymmetrizing Broken Symmetry with Hydraulic Pressure”, *Phys. Rev. Lett.* 123, 206602 (2019).

Publications prior to 2018

1. Insun Jo, Hao Deng, Yang Liu, L. N. Pfeiffer, K. W. West, K. W. Baldwin, and M. Shayegan, “Cyclotron Orbits of Composite Fermions in the Fractional Quantum Hall Regime”, *Phys. Rev. Lett.* 120, 016802 (2018).
2. A. T. Hatke, Yang Liu, L. W. Engel, L. N. Pfeiffer, K. W. West, K. W. Baldwin, and M. Shayegan, “Wigner solids of wide quantum wells near Landau filling $\nu=1$ ”, *Phys. Rev. B* 98, 195309 (2018).
3. H. Deng, Y. Liu, I. Jo, L. N. Pfeiffer, K. W. West, K. W. Baldwin, and M. Shayegan, “Interaction induced interlayer charge transfer in the extreme quantum limit”, *Phys. Rev. B* 96, 081102(R) (2017).
4. **Yang Liu***, Dominik Yan Sun, Yi-Ting Chen, and Hari C. Manoharan, “Landau level wavefunction in the extreme quantum limit in artificial graphene”, manuscript in prepare.
5. **Yang Liu***, Dominik K. Rastawicki, Warren Mar, Anna Miglio, Yan Sun, Alex W. Contryman, Lianhua He, Fang Liu, Aihui Zhou, Sorin Melinte, Jean-Christophe Charlier, Gian-Marco Rignanesi, and Hari C. Manoharan, “Short-Range Isotopic Variation and Long-Range Hidden Charge Fluctuations Revealed through a Single Quantum Vibron”, manuscript in prepare.

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8. **Yang Liu**, M. A. Mueed, Md. Shafayat Hossain, S. Hasdemir, L.N. Pfeiffer, K.W. West, K.W. Baldwin, and M. Shayegan, “Morphing of 2D Hole Systems at $\nu=3/2$ in Parallel Magnetic Fields: Compressible, Stripe, and Fractional Quantum Hall Phases”, *Phys. Rev. B* **94**, 155312 (2016).
9. **Yang Liu**, S. Hasdemir, L.N. Pfeifer, K.W. West, and K.W. Baldwin, M. Shayegan, “Observation of An Anisotropic Wigner Crystal”, *Phys. Rev. Lett.* **117**, 106802 (2016).
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12. **Yang Liu**, S. Hasdemir, M. Shayegan, L.N. Pfeifer, K.W. West, and K.W. Baldwin, “Unusual Landau level pinning and correlated $\nu = 1$ quantum Hall effect in hole systems confined to wide GaAs quantum wells”, *Phys. Rev. B* **92**, 195156 (2015).
13. **Yang Liu**, S. Hasdemir, J. Shabani, M. Shayegan, L.N. Pfeifer, K.W. West, and K.W. Baldwin, “Multicomponent fractional quantum Hall states with subband and spin degrees of freedom”, *Phys. Rev. B* **92**, 201101(R) (2015).
14. M. A. Mueed, D. Kamburov, **Yang Liu**, M. Shayegan, L. N. Pfeiffer, K. W. West, K. W. Baldwin, and R. Winkler, “Composite Fermions with a Warped Fermi Contour”, *Phys. Rev. Lett.* **114**, 176805 (2015).
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17. **Yang Liu**, S. Hasdemir, Dobromir Kamburov, A.L. Graninger, M. Shayegan, L.N. Pfeiffer, K.W. West, K.W. Baldwin, and R. Winkler, “Even-denominator Fractional Quantum Hall State at a Landau Level Crossing”, *Phys. Rev. B* **89**, 165313 (2014).
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22. **Yang Liu**, D. Kamburov, S. Hasdemir, M. Shayegan, L.N. Pfeifer, K.W. West, K.W. Baldwin, “Fractional Quantum Hall Effect and Wigner Crystal of Two-Flux Composite Fermions”, *Phys. Rev. Lett.* **113**, 246803 (2014).
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