

Curriculum Vitae

PRESENT ADDRESS

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EDUCATION

- 09/1979—07/1982 Yichun Normal College, Jiangxi, China
- 09/1986—07/1989 M.S. degree, Hangzhou University (Present: Zhejiang University), Zhejiang, China
- 09/1989—05/1992 Ph.D. degree, University of Science and Technology of China (USTC), Anhui, China

EMPLOYMENT

- 08/1982—08/1986 Teacher, Tangpu mining middle school, Jiangxi
- 06/1992—10/1993 Lecturer, Department of Physics, University of Science and Technology of China, Hefei
- 10/1993—4/1998 Associate Professor, Department of Physics, University of Science and Technology of China (USTC), Hefei
- 05/1994—04/1995 Research Fellow of Alexander von Humboldt Foundation with Professor G. Roth, Institut für Nuclear Festkörperphysik, Forschungszentrum Karlsruhe, Germany
- 05/1995—10/1995 Research Fellow of Alexander von Humboldt Foundation with Professor S. Roth, Maxplanck Institut für Festkörperforschung Stuttgart, Germany
- 05/1998—present Professor, Department of Physics, University of Science and Technology of China, Hefei
- 07/1998—02/1999 Visiting Professor and Working with Professor Y. Iwasa, Japan Advanced Institute of Science and Technology, Ishikawa, Japan
- 01/2001—9/2003 Visiting Research Professor and Working with Professor Paul C. W. Chu, Texas Center for Superconductivity at University of Houston
- 01/2003—12/2007 Chair Professor (Chang-Jiang), Department of Physics, University of Science and Technology of China, Hefei

CURRENT RESEARCH INTERESTS

1. High-Tc superconductors
2. Strongly correlated electron Matters
3. Novel quantum materials and phenomena

REPRESENTATIVE PAPERS

1. C.Wang, Q.Y.He, U.Halium, Y.Y.Liu, E.B.Zhu, Z.Y.Lin, H.Xiao, X.D.Duan, Z.Y.Feng, R.Cheng, N.O.Weiss, G.J.Ye, Y.C.Huang, H.Wu, H.C.Cheng, I.Shakir, L.Liao, **X.H.Chen**, W.A.Goddard III, Y.Huang, X.F.Duan, *Monolayer atomic crystal molecular superlattices*, Nature **555** (2018) 231-236.
2. L. K. Li, J. H. Kim, C. H. Jin, G. J. Ye, D. Y. Qiu, F. H. da Jornada, Z. W. Shi, L. Chen, Z. C. Zhang, F. Y. Yang, K. Watanabe, T. Taniguchi, W. C. Ren, S. G. Louie, **X. H. Chen**, Y. B. Zhang and F. Wang, *Direct Observation of Layer-Dependent Electronic Structure in Phosphorene*, Nature Nanotechnology 12, 21-25 (2017).
3. Y. P. Wu, D. Zhao, A. F. Wang, N. Z. Wang, Z. J. Xiang, X. G. Luo, T. Wu* and **X. H. Chen**, *Emergent Kondo lattice behavior in iron-based superconductors AFe_2As_2 ($A = K, Rb, Cs$)*, Physical Review Letters 116, 147001 (2016).
4. L. K. Li, F. Y. Yang, G. J. Ye, Z. C. Zhang, Z. W. Zhu, W. K. Lou, L. Li, K. Watanabe, T. Taniguchi, K. Chang, Y. Y. Wang, **X. H. Chen** and Y. B. Zhang, *Quantum Hall Effect in Black Phosphorus Two-dimensional Electron System*, Nature Nanotechnology 11 (2016) 592-596.
5. B. Lei, J. H. Cui, Z. J. Xiang, C. Shang, N. Z. Wang, G. J. Ye, X. G. Luo, T. Wu, Z. Sun, and **X. H. Chen**, *Evolution of High-Temperature Superconductivity from a Low-Tc Phase Tuned by Carrier Concentration in FeSe Thin Flakes*, Physical Review Letters 116, 077002 (2016)
6. Z. J. Xiang, D. Zhao, Z. Jin, C. Shang, L. K. Ma, G. J. Ye, B. Lei, T. Wu, Z. C. Xia, and **X. H. Chen**, *Angular-Dependent Phase Factor of Shubnikov–de Haas Oscillations in the Dirac Semimetal Cd_3As_2* , Phys. Rev. Lett. 115, 226401 (2015).
7. Z. J. Xiang, G. J. Ye, C. Shang, B. Lei, N. Z. Wang, K. S. Yang, D. Y. Liu, F. B. Meng, X. G. Luo, L. J. Zou, Z. Sun, Y. Zhang, and **X. H. Chen**, *Pressure-Induced Electronic Transition in Black Phosphorus*, Phys. Rev. Lett. 115, 186403 (2015).
8. Likai Li, Guo Jun Ye, Vy Tran, Ruixiang Fei, Guorui Chen, Huichao Wang, Jian Wang, Kenji Watanabe, Takashi Taniguchi, Li Yang, **Xian Hui Chen** and Yuanbo Zhang, *Quantum oscillations in a two-dimensional electron gas in black phosphorus thin films*, Nature Nanotechnology 10, 613-618 (2015).
9. X. F. Lu, N. Z. Wang, H. Wu, Y. P. Wu, D. Zhao, X. Z. Zeng, X. G. Luo, T. Wu, W. Bao, G.

- H. Zhang, F. Q. Huang, Q. Z. Huang, **X. H. Chen**, *Coexistence of superconductivity and antiferromagnetism in $(\text{Li}_{0.8}\text{Fe}_{0.2})\text{OHFeSe}$* , Nature Materials **14**, 325-329 (2015).
10. G. Li, Z. Xiang, F. Yu, T. Asaba, B. Lawson, P. Cai, C. Tinsman, A. Berkley, S. Wolgast, Y. S. Eo, Dae-Jeong Kim, C. Kurdak, J. W. Allen, K. Sun, **X. H. Chen**, Y. Y. Wang, Z. Fisk and Lu Li
 11. , *Two-dimensional Fermi surfaces in Kondo insulator SmB_6* , Science **346**(2014), 1204.
 12. Likai Li, Yijun Yu, Guo Jun Ye, Qingqin Ge, Xuedong Ou, Hua Wu, Donglai Feng, **Xian Hui Chen**, and Yuanbo Zhang, *Black phosphorus field-effect transistors*, Nature Nanotechnology **9**(2014), 372-377.
 13. F. F. Tafti, A. Juneau-Fecteau, M.-E. Delage, S. Rene de Cotret, J.-Ph. Reid, A. F. Wang, X.-G. Luo, **X. H. Chen**, N. Doiron-Leyraud, Louis Taillefer, *Sudden reversal in the pressure dependence of T_c in the iron-based superconductor KFe_2As_2* , Nature Physics **9**(2013), 349.
 14. X. F. Wang, R. H. Liu, Z. Gui, Y. L. Xie, Y. J. Yan, J. J. Ying, X. G. Luo, **X. H. Chen** *Superconductivity at 5 K in alkali-metal-doped phenanthrene*, Nature communications **2**(2011), 507.
 15. J. J. Ying, X. F. Wang, T. Wu, Z. J. Xiang, R. H. Liu, Y. J. Yan, A. F. Wang, M. Zhang, G. J. Ye, P. Cheng, J. P. Hu, **X. H. Chen**, *Measurements of the Anisotropic In-Plane Resistivity of Underdoped FeAs-Based Pnictide Superconductors*, Phys. Rev. Lett. **107**(2011), 067001.
 16. R. H. Liu, T. Wu, G. Wu, H. Chen, X. F. Wang, Y. L. Xie, J. J. Ying, Y. J. Yan, Q. J. Li, B. C. Shi, W. S. Chu, Z. Y. Wu and **X. H. Chen**, *A large iron isotope effect in $\text{SmFeAsO}_{1-x}\text{Fx}$ and $\text{Ba}_{1-x}\text{K}_x\text{Fe}_2\text{As}_2$* , Nature **459**(2009), 64-67.
 17. X. F. Wang, T. Wu, G. Wu, H. Chen, Y. L. Xie, J. J. Ying, Y. J. Yan, R. H. Liu and **X. H. Chen** *Anisotropy in the electrical resistivity and susceptibility of superconducting BaFe_2As_2 single crystals*, Phys. Rev. Lett. **102**(2009), 117005.
 18. A.J. Drew, Ch. Niedermayer, P. J. Baker, F. L. Pratt, S. J. Blundell, T. Lancaster, R. H. Liu, G. Wu, **X. H. Chen**, I. Watanabe, V. K. Malik, A. Dubroka, M. Roessle, K. W. Kim, C. Baines, C. Bernhard, *Coexistence of static magnetism and superconductivity in $\text{SmFeAsO}_{1-x}\text{Fx}$ as revealed by muon spin rotation*, Nature Material **8**(2009), 310-314.
 19. **X. H. Chen**, T. Wu, G. Wu, R. H. Liu, H. Chen and D. F. Fang, *Superconductivity at 43 K in Samarium-arsenide Oxides $\text{SmFeAsO}_{1-x}\text{Fx}$* , Nature **453**(2008), 761-762.
 20. G. Y. Wang, **X. H. Chen**, T. Wu, X. G. Luo, W. T. Zhang, G. Wu, *Novel dynamical effects and glassy response in strongly correlated electronic system*, Phys. Rev. Lett. **100**(2008), 146402.
 21. R. H. Liu, G. Wu, T. Wu, D. F. Fang, H. Chen, S. Y. Li, K. Liu, Y. L. Xie, X. F. Wang, R. L.

- Yang, C. He, D. L. Feng and **X. H. Chen**, *Anomalous Transport Properties and Phase Diagram of the FeAs-Based SmFeAsO_{1-x}F_x Superconductors*, Phys. Rev. Lett. **101**(2008), 087001.
22. T. Y. Chen, Z. Tesanovic, R. H. Liu, **X. H. Chen**, C. L. Chien, *The BCS like gap in superconductor SmFeAsO_{0.85}F_{0.15}*, Nature **453**(2008), 1224.
23. A.J. Drew, F. L. Pratt, T. Lancaster, S. J. Blundell, P. J. Baker, R. H. Liu, G. Wu, **X. H. Chen**, I. Watanabe, V. K. Malik, A. Dubroka, K. W. Kim, M. Rossle, and C. Bernhard, *Coexistence of magnetism and superconductivity in the pnictide high temperature superconductor SmO_{0.82}F_{0.18}FeAs measured by muon spin rotation*, Phys. Rev. Lett. **101**(2008), 097010.
24. H.Wang, **X. H. Chen**, T. Wu, X. G. Luo, G. Y. Wang, and J. L. Luo, *In-plane ferromagnetism in charge-ordering Na_{0.55}CoO₂C*, Phys. Rev. Lett. **96**(2006), 216401.
25. **X. H. Chen**, Z. S. Liu, Z. Sun, D. H. Chi, T. Takenobu and Y. Iwasa, *Synthesis structure and transport properties of novel fullerenes A₃C₇₀(A=Ba and Sm)*, J. Am. Chem. Soc. **122**(2000), 5729.