

# Curriculum Vitae

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## Education

10.1999-10.2003: Ph.D, Max-Planck Institute for Chemical Physics of Solids, Germany.  
Dr. rer. Nat. in Physics, October 6, 2003, Technische Universität Dresden  
(grade: magna cum laude). Supervisor: Prof. Frank Steglich

09.1996-12.1998: Graduate, Xiangtan University, Hunan, China.  
M. Sc. in Physics, January 25, 1999 (grade: excellent).  
Supervisor: Prof. Jianxin Zhong.

09.1992-06.1996: Undergraduate, Xiangtan University, Hunan, China.  
B. S. in Physics, June 20, 1996 (grade: excellent).

## Work Experience

04.2012 - present: Executive Deputy Director, Center for Correlated Matter, Zhejiang University.  
08.2008 - present: Changjiang Full Professor, Department of Physics, Zhejiang University.  
05.2007 - 08. 2008: Director's Postdoctoral Fellow, Los Alamos National Laboratory.  
08.2004 - 05.2007: Postdoctoral research associate, Department of Physics, University of Illinois at Urbana and Champaign.  
10.1999 - 08.2004: Research assistant, Max-Planck Institute for Chemical Physics of solids.  
06.1999 - 09.1999: visitor, Theoretische Physik III, Technische Universität Chemnitz.

## Honors / Awards

Feb.2019: Selected as a leading scientist for National Innovation of Science and Technology.  
Mar. 2008: Changjiang Professorship, Ministry of Education, China.  
Nov. 2006-Aug. 2008: Director's Postdoctoral Fellowship, Los Alamos National Laboratory.  
Jul. 2004- Jun. 2007: ICAM Postdoctoral Fellowship.  
Oct. 1999-Oct. 2003: Doctorate scholarship (Max-Planck Society).

## Professional Services

1. Editorial Board Member: Reviews in Physics (Elsevier); Frontiers in Electronic Materials; Science China (MPA); Chinese Physics Letters; Physics(Chinese); Low Temperature Physics (Chinese); High Pressure Physics (Chinese).
2. Committee Member:
  - High Pressure Physics Division, Chinese Physical Society
  - Low Temperature Physics Division, Chinese Physical Society.
3. Member of International Advisory and/ or Program Committee:
  - International Conference on Strongly Correlated Electron System (SCES),
  - International Conference on Materials and Mechanism of Superconductivity (M2S);
  - International Conference "Research in High Magnetic Fields " (RHMF).

### **Conferences Organizations**

1. 2014-present: Heavy Fermion Forum (annual meeting), Co-Chair.
2. 2019: 2nd Zhejiang Workshop on Correlated Matter, Chair.
3. 2017: 1st Zhejiang Workshop on Correlated Matter, Chair.
4. 2016: International Conference on Strongly Correlated Electron Systems (SCES 2016), Co-Chair.
5. 2015: International Workshop on Heavy Fermions and Quantum Phase Transitions, Co-Chair.
6. 2013: Sino-German Workshop on Kondo and Mott Physics in Correlated Matter, Co-Chair.
7. 2012: Sino-German Bilateral Workshop on Emergent Phases in Correlated and Topological Matter, Co-Chair.
8. 2010: Hangzhou Workshop on Quantum Matter, Co-Chair.

### **Research Grants**

1. 2021-2024: Novel correlated quantum materials and the tuning of their physical properties, *Key R&D project of Zhejiang Province*, China, 6,900K RMB (PI)
2. 2021-2025: Studies of ferromagnetic quantum phase transition and its related physical properties, *NSFC-key project*, 3,100K RMB (PI).
3. 2020-2023: Exploration of topological quantum states in Kondo lattice compounds and investigation of their related physical properties, *NSFC-Regular*, 650K RMB (PI).
4. 2017-2022: Emergent quantum states and their manipulation in heavy fermion systems, *National key R & D Program*, Total: 26,520K RMB (PI).
5. 2017-2020: Exotic properties of heavy fermion materials under strong magnetic field and/or high pressure, *NSFC - key project*, 2,968K RMB (PI).
6. 2016-2021: Competition and manipulation of multi-quantum orders in rare earth compounds, *National key R & D Program*, 3,050K RMB (Co-PI).
7. 2016-2021: Studies on novel quantum properties of f-electron materials, *Science Challenge*

- Program*, 3,000K RMB (Co-PI).
- 8. 2015-2021: Sino-German Corporation Group on Emergent Correlated Materials, *Sino-German Promotion Center*, 2,980K RMB (PI).
  - 9. 2015-2018: Effect of lacking inversion symmetry on superconductivity and the related properties, *NSFC - regular*, 1,000K RMB (PI).
  - 10. 2013-2014: Study on novel properties of correlated electron materials, *Bureau of Science and Technology of Zhejiang Province*, 200K RMB (PI).
  - 11. 2012-2015: Valence instability and superconductivity in Ce- and Yb-based mixed valence compounds, *NSFC - regular*, 750K RMB (PI).
  - 12. 2010-2015: Study on superconductivity and physical properties of the transition metal compounds, *973 Program*, 1,200K RMB (Co-PI).
  - 13. 2010-2016: Non-centrosymmetric superconducting, *Max-Planck Society (MPI-Partner group)*, 100K Euro (PI).
  - 14. 2010-2013: Study on the emergent quantum phases in d- and f- electron materials, *NSFC - key project*, 2,000K RMB (PI).
  - 15. 2010-2012: Exotic quantum properties in orrelated electron materials, *Natural Science Fund Project of Zhejiang Province*, 400K RMB (PI).
  - 16. 2009-2011: Magnetic quantum phase transitions and non-Fermi liquid behavior in Ce-based heavy fermion compounds and Ruthenium compounds, *NSFC - regular*, 460K RMB (PI).
  - 17. 2008-2013: Quantum phase transition and quantum control in the correlated electron systems, *973 Key Program*, 3,000K RMB (PI).

## List of publications

*Published over 140 peer reviewed articles, including 3 in Nature, 1 in Science, 2 in PNAS, 15 in PRL and 2 in Nature Communications, as well as 7 invited review articles with 2 in Rep. Prog. Phys.. The total citation is over 5300 times (google scholar).*

1. Feng Du, Shuaishuai Luo, Brenden R. Ortiz, Ye Chen, Weiyin Duan, Dongting Zhang, Xin Lu, Stephen D. Wilson, Yu Song\*, **Huiqiu Yuan\***, Pressure-induced double superconducting domes and charge instability in the kagome metal KV<sub>3</sub>Sb<sub>5</sub>, *Phys. Rev. B* **103**, L220504 (2021).
2. Dongting Zhang, Tian Le, Baijiang Lv, Lichang Yin, Chufan Chen, Zhiyong Nie, Dajun Su, **Huiqiu Yuan**, Zhu-An Xu, Xin Lu\*, Full superconducting gap and type-I to type-II superconductivity transition in single crystalline NbGe<sub>2</sub>, *Phys. Rev. B* **103**, 214508 (2021).
3. T. Shang\*, W. Xie, J. Z. Zhao, Y. Chen, D. J. Gawryluk, M. Medarde, M. Shi, **H. Q. Yuan**, E. Pomjakushina, and T. Shiroka, Multigap, superconductivity in centrosymmetric and noncentrosymmetric rhenium-boron superconductors, *Phys. Rev. B* **103**, 184517 (2021).
4. Yi Wu, Yongjun Zhang, Feng Du, Bin Shen, Hao Zheng, Yuan Fang, Michael Smidman, Chao Cao, Frank Steglich, **Huiqiu Yuan\***, Jonathan D. Denlinger, and Yang Liu\*, Anisotropic c – f Hybridization in the Ferromagnetic Quantum Critical Metal CeRh<sub>6</sub>Ge<sub>4</sub>, *Phys. Rev. Lett.* **126**, 216406 (2021).
5. Y. H. Pei, Y. J. Zhang, Z. X. Wei, Y. X. Chen, K. Hu, Yi-feng Yang, **H. Q. Yuan\*** and J. Qi\*, Unveiling the hybridization process in a quantum critical ferromagnet by ultrafast optical spectroscopy, *Phys. Rev. B* **103**, L180409 (2021).
6. Yi Wu, Yuan Fang, Peng Li, Zhiguang Xiao, Hao Zheng, **Huiqiu Yuan**, Chao Cao, Yi-feng Yang \* and Yang Liu\*, Bandwidth-control orbital-selective delocalization of 4f electrons in epitaxial Ce films, *Nat. Commun.* **12**, 2520 (2021).
7. Yuan Fang, Ding Wang, Peng Li, Hang Su, Tian Le, Yi Wu, Guo-Wei Yang, Hua-Li Zhang, Zhi-Guang Xiao, Yan-Qiu Sun, Si-Yuan Hong, Yan-Wu Xie, Huan-Hua Wang, Chao Cao, Xin Lu, **Hui-Qiu Yuan** and Yang Liu\*, Growth, electronic structure and superconductivity of ultrathin epitaxial CoSi<sub>2</sub> films, *J. Phys.: Condens. Matter.* **33**, 155501 (2021).
8. Z.Y.Nie, L. C.Yin, A. Thamizhavel, A. Wang, B. Shen, L. Q. Che, F. Du, Z. Hossain, M. Smidman, X. Lu, **H. Q. Yuan\***, Nodeless superconductivity in the charge density wave superconductor LaPt<sub>2</sub>Si<sub>2</sub>, *Phys. Rev. B* **103**, 014515 (2021).
9. Sudeep Kumar Ghosh\*, Michael Smidman\*, Tian Shang, James F. Annett, Adrian Hillier, Jorge Quintanilla and **Huiqiu Yuan\***, Recent progress on superconductors with time-reversal symmetry breaking, *J. Phys. Condens. Matter.* **33**, 033001 (2021).
10. A. Wang, Z. Y. Nie, F. Du, G. M. Pang, N. Kase, J. Akimitsu, Y. Chen, M. J. Gutmann, D. T. Adroja, R. S. Perry, C. Cao, M. Smidman, **H. Q. Yuan\***, Nodeless superconductivity in Lu<sub>5-x</sub>Rh<sub>6</sub>Sn<sub>18+x</sub> with broken time reversal symmetry, *Phys. Rev. B* **103**, 024503 (2020)
11. F. Du, H. Su, S. S. Luo, B. Shen, Z. Y. Nie, L. C. Yin, Y. Chen, R. Li, M. Smidman, **H. Q. Yuan\***, Interplay between charge density wave order and superconductivity in LaAuSb<sub>2</sub> under pressure, *Phys. Rev. B* **102**, 144510 (2020).
12. T. Shang, W. Xie, D. J. Gawryluk, R. Khasanov, J. Z.Zhao, M. Medarde, M. Shi, **H. Q. Yuan**, E. Pomjakushina, T. Shiroka, Multigap superconductivity in the Mo<sub>5</sub>PB<sub>2</sub> boron-phosphorus compound, *New J. Phys.* **22**, 093016 (2020).

13. T. Le, Y. Sun, H. K. Jin, L. Q. Che, LQ; L. C. Yin, J. Li, J; G. M. Pang, C. Q. Xu, L. X. Zhao, S. Kittaka, T. Sakakibara, K. Machida, R. Sankar, **H. Q. Yuan**, G. F. Chen, X. F. Xu, S. Y. Li, Y. Zhou, X. Lu, Evidence for nematic superconductivity of topological surface states in PbTaSe<sub>2</sub>, *Science Bulletin*, 65, 1349(2020).
14. P. R. Zhang, **H. Q. Yuan\*** and C. Cao\*, Electron-phonon coupling and nontrivial band topology in noncentrosymmetric superconductors LaNiSi, LaPtSi, and LaPtGe, *Phys. Rev. B* **101**, 245145 (2020).
15. T. Shang\*, M. Smidman, A. Wang, L.-J. Chang, C. Baines, M. K. Lee, Z. Y. Nie, G. M. Pang, W. Xie, W. B. Jiang, M. Shi, M. Medarde, T. Shiroka, and **H. Q. Yuan\***, Simultaneous Nodal Superconductivity and Time-Reversal Symmetry Breaking in the Noncentrosymmetric Superconductor CaPtAs, *Phys. Rev. Lett.* **124**, 207001 (2020).
16. B. Shen, F. Du, R. Li, A. Thamizhavel, M. Smidman, Z. Y. Nie, S. S. Luo, T. Le, Z. Hossain, and **H. Q. Yuan\***, Evolution of charge density wave order and superconductivity under pressure in LaPt<sub>2</sub>Si<sub>2</sub>, *Phys. Rev. B* **101**, 144501 (2020).
17. Bin Shen, Yongjun Zhang, Yashar Komijani, Michael Nicklas, Robert Borth, An Wang, Ye Chen, Zhiyong Nie, Rui Li, Xin Lu, Hanoh Lee, Michael Smidman, Frank Steglich, Piers Coleman, **Huiqiu Yuan\***, Strange-metal behaviour in a pure ferromagnetic Kondo lattice, *Nature* **579**, 51 (2020).
18. Jian Chen\*, An Wang, Guiming Pang, Hang Su, Ye Chen, and **H. Q. Yuan\***, Nodeless superconductivity in  $\beta$ -PdBi<sub>2</sub>, *Phys. Rev. B* **101**, 054514 (2020).
19. W. Xie, P. R. Zhang, B. Shen, W. B. Jiang, G. M. Pang, T. Shang, C. Cao, M. Smidman, **H. Q. Yuan\***, CaPtAs: a new noncentrosymmetric superconductor, *Science China: Physics, Mechanics & Astronomy* **63**, 237412 (2020).
20. W. Xie, Y. Wu, F. Du, A. Wang, H. Su, Y. Chen, Z. Y. Nie, S.-K. Mo, M. Smidman, C. Cao, Y. Liu, T. Takabatake, and **H. Q. Yuan\***, Magnetotransport and electronic structure of the antiferromagnetic semimetal YbAs, *Phys. Rev. B* **101**, 085132 (2020).
21. Y. P. Liu, Y. J. Zhang, J. J. Dong, H. Lee, Z. X. Wei, W. L. Zhang, C. Y. Chen, **H. Q. Yuan**, Yi-feng Yang and J. Qi, Hybridization dynamics revealed by ultrafast optical spectroscopy in CeCoIn<sub>5</sub>, *Phys. Rev. Lett.* **124**, 057404 (2020).
22. Y. J. Zhang, B. Shen, F. Du, Y. Chen, J. Y. Liu, Hanoh Lee, M. Smidman, and **H. Q. Yuan**, Structural and magnetic properties of antiferromagnetic Ce<sub>2</sub>IrGa<sub>12</sub>, *Phys. Rev. B* **101**, 024421 (2020).
23. Peng Li, Zhongzheng Wu, Fan Wu, Chunyu Guo, Yi Liu, Haijiang Liu, Zhe Sun, Ming Shi, Fanny Rodolakis, Jessica L. McChesney, Chao Cao, **Huiqiu Yuan\***, Frank Steglich, and Yang Liu\*, Large Fermi surface expansion through anisotropic mixing of conduction and f electrons in the semimetallic Kondo lattice CeBi, *Phys. Rev. B* **100**, 155110 (2019).
24. Xie Wu, Shen Bin, Zhang Yong-Jun, Guo Chun-Yu, Xu Jia-Cheng, Lu Xin, Yuan Hui-Qiu\*, Heavy fermion materials and physics, *Acta Physica Sinica* **68**, 177101 (2019). (Invited review).
25. T Shang, A Amon, D Kasinathan, W Xie, M Bobnar, Y Chen, A Wang, M Shi, M Medarde, **H. Q. Yuan** and T Shiroka, Enhanced Tc and multiband superconductivity in the fully-gapped ReBe<sub>22</sub> superconductor, *New J. Phys.* **21** 073034 (2019).
26. F. Wu, C.Y.Guo, M.Smidman, J. L.Zhang, Y.Chen, J.Singleton and **H. Q. Yuan\***, Anomalous quantum oscillations and evidence for a non-trivial Berry phase in SmSb, *npj Quantum Materials* **4**:20 (2019).

27. F. Wu, C. Y. Guo, Y. Chen, H. Su, A. Wang, M. Smidman, and **H. Q. Yuan\***, Magnetic field induced antiferromagnetic tricritical points in Ce<sub>2</sub>Sb and Ce<sub>2</sub>Bi, *Phys. Rev. B* **99**, 064419 (2019).
28. M Smidman, B Shen, C Y Guo, L Jiao, X Lu, **H Q Yuan\***, Heavy fermions in high magnetic fields, *Chin. Phys. B* **28**, 017106 (2019) (invited review).
29. Z. Z. Wu, F. Wu, P. Li, C. Y. Guo, Y. Liu, Z. Sun, C. W. Cheng, T. C. Chiang, C. Cao, **H. Q. Yuan\***, and Y. Liu\*, Probing the origin of extreme magnetoresistance in Pr/Sm mono-antimonides/bismuthides, *Phys. Rev. B* **99**, 035158 (2019).
30. L. Jiao, M. Smidman, Y. Kohama, Z. S. Wang, D. Graf, Z. F. Weng, Y. J. Zhang, A. Matsuo, E. D. Bauer, Hanoh Lee, S. Kirchner, J. Singleton, K. Kindo, J. Wosnitza, F. Steglich, J. D. Thompson, and **H. Q. Yuan\***, Enhancement of the effective mass at high magnetic fields in CeRhIn<sub>5</sub>, *Phys. Rev. B* **99**, 045127 (2019).
31. T. Shang, M. Smidman, S. K. Ghosh, C. Baines, L. J. Chang, D. J. Gawryluk, J. A. T. Barker, R. P. Singh, D. McK. Paul, G. Balakrishnan, E. Pomjakushina, M. Shi, M. Medarde, A. D. Hillier, **H. Q. Yuan**, J. Quintanilla, J. Mesot, and T. Shiroka, Time-Reversal Symmetry Breaking in Re-Based Superconductors *Phys. Rev. Lett.* **121**, 257002 (2018).
32. Lin Jiao, Sahana Rößler, Deepa Kasinathan, Priscila F. S. Rosa, Chunyu Guo, **Huiqiu Yuan**, Chao-Xing Liu, Zachary Fisk, Frank Steglich and Steffen Wirth, Magnetic and defect probes of the SmB<sub>6</sub> surface state. *Sci. Adv.* **4**, eaau4886 (2018).
33. M. Smidman, O. Stockert, J. Arndt, G. M. Pang, L. Jiao, **H. Q. Yuan**, H. A. Vieyra, S. Kitagawa, K. Ishida, K. Fujiwara, T. C. Kobayashi, E. Schuberth, M. Tippmann, L. Steinke, S. Lausberg, A. Steppke, M. Brando, H. Pfau, U. Stockert, P. Sun, S. Friedemann, S. Wirth, C. Krellner, S. Kirchner, E.M. Nica, R. Yu, Q. Si, F. Steglich, Interplay between unconventional superconductivity and heavy-fermion quantum criticality: CeCu<sub>2</sub>Si<sub>2</sub> versus YbRh<sub>2</sub>Si<sub>2</sub>, *Phil. Mag.* **98**, 2930 (2018).
34. C. Y. Guo, F. Wu, Z. Z. Wu, M. Smidman, C. Cao, A. Bostwick, C. Jozwiak, E. Rotenberg, Y. Liu, F. Steglich and **H. Q. Yuan\***, Evidence for Weyl fermions in a canonical heavy-fermion semimetal YbPtBi. *Nat. Commun.* **9**, 4622 (2018).
35. X. Duan, F. Wu, J. Chen, P. R. Zhang, Y. Liu, **H. Q. Yuan**, C. Cao, Tunable electronic structure and topological properties of LnPn (Ln=Ce, Pr, Sm, Gd, Yb; Pn=Sb, Bi), *Commun. Phys.* **1**, 71 (2018).
36. C. Y. Guo, F. Wu, M. Smidman and **H. Q. Yuan**, Sample dependence studies of the Kondo Weyl semimetal YbPtBi, *AIP Advance* **8**, 101336 (2018).
37. S. S. Ma, C. Y. Guo, F. Wu, M. Smidman, Y. H. Lu\*, **H. Q. Yuan\***, H. Z. Wu\*, Realization of a New Topological Crystalline Insulator and Lifshitz Transition in PbTe, *Adv. Funct. Mater.* **28**, 1803188 (2018).
38. Y. J. Zhang, X.B. Xia, W. B. Jiang, Y. F. Wang, J. Y. Liu, **H. Q. Yuan** and H. Lee, Single crystal growth and anisotropic physical properties of Sm<sub>4</sub>Co<sub>3</sub>Ga<sub>16</sub>, *J. Phys.: Condens. Matter* **30**, 345701(2018).
39. Peng Li, Zhongzheng Wu, Fan Wu, Chao Cao\*, Chunyu Guo, Yi Wu, Yi Liu, Zhe Sun, Cheng-Maw Cheng, Deng-Sung Lin, Frank Steglich, **Huiqiu Yuan\***, Tai-Chang Chiang, and Yang Liu\*, Tunable electronic structure and surface states in rare-earth monobismuthides with partially filled *f* shell, *Phys. Rev. B* **98**, 085103 (2018).

40. C. Y. Guo, M. Smidman, B. Shen, W. Wu, F. K. Lin, X. L Han, Y. Chen, F. Wu, Y. F. Wang, W. B. Jiang, X. Lu, J. P. Hu, J. L. Luo, and **H. Q. Yuan\***, Evidence for triplet superconductivity near an antiferromagnetic instability in CrAs, *Phys. Rev. B* **98**, 024520 (2018).
41. Q. Liu, B. Shen, M. Smidman, R. Li, Z. Y. Nie, X. Y. Xiao, Y. Chen, H. Lee., **H. Q. Yuan\***, Structural and magnetic properties of CeZnAl<sub>3</sub> single crystals, *Sci. Chin. PMA* **61**, 077411 (2018).
42. G. M. Pang, Z. Y. Nie, A. Wang, D. Singh, W. Xie, W. B. Jiang, Y. Chen, R. P. Singh, M. Smidman\* and **H. Q. Yuan\***, Fully gapped superconductivity in single crystals of noncentrosymmetric Re<sub>6</sub>Zr with broken time-reversal symmetry, *Phys. Rev. B* **97**, 0224506 (2018).
43. G. M. Pang, M. Smidman, J. L. Zhang, L. Jiao, Z. F. Weng, E. M. Nica, Y. Chen, W. B. Jiang, Y. J. Zhang, H. S. Jeevan, P. Gegenwart, F. Steglich, Q. Si, and **H. Q. Yuan\***: Evidence for fully gapped d-wave superconductivity in CeCu<sub>2</sub>Si<sub>2</sub>, *PNAS* **115**, 5343 (2018).
44. W. Zhang, C. Y. Guo, D. H. Xie, M. Smidman, B. F. Hu, Y. H. Xia, Y. Liu1, S. Y. Tan, W. Feng, X. G. Zhu, Y. Zhang, Q. Q. Hao, L. Z. Luo, **H. Q. Yuan**, X. C. Lai, Physical properties and field-induced metamagnetic transitions in UAu<sub>0.8</sub>Sb<sub>2</sub>, *Sci. Rep.* **8**, 7835 (2018).
45. X. B Xia, B. Shen, M. Smidman, Y. Chen, H. Lee1, **H. Q. Yuan\***, Tuning the Heavy Fermion State of CeFeGe<sub>3</sub> by Ru Doping, *Chin. Phys. Lett.* **35**, 067602 (2018).
46. Q. Y. Chen, D. F. Xu, X. H. Niu, R. Peng, H. C. Xu, C. H. P. Wen, X. Liu, L. Shu, S. Y. Tan, X. C. Lai, Y.J. Zhang, H. Lee, V. N. Strocov, F. Bisti, P. Dudin, J.-X. Zhu, **H. Q. Yuan**, S. Kirchner, and D. L. Feng, Band Dependent Interlayer f -Electron Hybridization in CeRhIn<sub>5</sub>, *Phys. Rev. Lett.* **120**, 066403 (2018).
47. G. M. Pang, M. Smidman, W. H. Jiao, L. Jiao, Z. F. Weng, W. B. Jiang, C. Y. Guo, Y. Chen, G. H. Cao, and **H. Q. Yuan\***: Evidence for nodal superconductivity in a layered compound Ta<sub>4</sub>Pd<sub>3</sub>Te<sub>16</sub>, *J. Phys. Condens Matt.* **30**, 055701 (2018).
48. T. Shang, G. M. Pang; C. Baines, W. B. Jiang, W. Xie, A. Wang, M. Medarde, E. Pomjakushina, M. Shi, J. Mesot, **H. Q. Yuan**, T. Shiroka, Nodeless superconductivity and time-reversal symmetry breaking in the noncentrosymmetric superconductor Re<sub>24</sub>Ti<sub>5</sub>, *Phys. Rev. B* **97**, 020502 (2018).
49. O. Ivashko, O. L. Yang, D. Destraz, E. Martino, Y. Chen, C. Y. Guo, **H. Q. Yuan**, A. Pisoni, P. Matus, S. Pyon, K. Kudo, M. Nohara, L. Forro, H. M. Ronnow, M. Hucker, M. von Zimmermann, J. Chang, Charge-Stripe Order and Superconductivity in Ir<sub>1-x</sub>Pt<sub>x</sub>Te<sub>2</sub>, *Scientific Reports* **7**, 17157 (2017).
50. F. Wu, C. Y. Guo, M. Smidman, J. L. Zhang, and **H. Q. Yuan\***, Extremely large magnetoresistance and Fermi surface topology of PrSb, *Phys. Rev. B* **96**, 125122 (2017).
51. M. O. Ajeeesh, T. Shang, W. B. Jiang, W. Xie, R. D. dos Reis, M. Smidman, C. Geibel, **H. Q. Yuan\***, M. Nicklas\*: Ising-type Magnetic Anisotropy in CePd<sub>2</sub>As<sub>2</sub>, *Scientific Reports* **7**, 7338 (2017).
52. C. Y. Guo, C. Cao, M. Smidman, F. Wu, Y. J. Zhang, F. Steglich, F. C. Zhang, **H. Q. Yuan\***: Possible Weyl fermions in the magnetic Kondo system CeSb, *npj Quantum Materials* **2**, 39 (2017).
53. Q. Y. Chen, D. F. Xu, X. H. Niu, J. Jiang, R. Peng, H. C. Xu, C. H. P. Wen, Z. F. Ding, K. Huang, L. Shu, Y. J. Zhang, H. Lee, V. N. Strocov, M. Shi, F. Bisti, T. Schmitt, Y. B. Huang, P.

- Dudin, X. C. Lai, Stefan Kirchner, **H. Q. Yuan**, and D. L. Feng, Direct observation of how the heavy fermion state develops in CeCoIn<sub>5</sub>, *Phys. Rev. B* **96**, 045107 (2017).
54. M. Smidman, G. M. Pang, H. X. Zhou, N. Z. Wang, W. Xie, Z. F. Weng, Y. Chen, X. L. Dong, X.H. Chen, Z. X. Zhao, **H. Q. Yuan\***, Probing the superconducting gap structure of (Li<sub>1-x</sub>Fe<sub>x</sub>)OHFeSe, *Phys. Rev. B* **96** 014504 (2017).
55. J. L. Zhang, C. Y. Guo, X. D. Zhu, L. Ma, G. L. Zheng, Y. Q. Wang, L. Pi, Y. Chen, **H. Q. Yuan**, M. L. Tian, Disruption of the Accidental Dirac Semimetal State in ZrTe<sub>5</sub> under Hydrostatic Pressure, *Phys. Rev. Lett.* **118**, 206601 (2017).
56. Z. F. Weng, M. Smidman, G. M. Pang, O. Prakash, Y. Chen, Y. J. Zhang, S. Ramakrishnan, and **H. Q. Yuan\***, Nodeless superconductivity and the peak effect in the quasikutterudites Lu<sub>3</sub>Os<sub>4</sub>Ge<sub>13</sub> and Y<sub>3</sub>Ru<sub>4</sub>Ge<sub>13</sub> ,*Phys. Rev. B* **95**, 184501 (2017).
57. M. Smidman, M. B. Salamon, **H. Q. Yuan\*** and D. F. Agterberg\*, Superconductivity and spin-orbit coupling in non-centrosymmetric materials: a review, *Rep. Prog. Phys.* **80**, 036501 (2017).
58. W. B. Jiang, M. Smidman, W. Xie, J. Y. Liu, J. M. Lee, J. M. Chen, S. C. Ho, H. Ishii, K. D. Tsuei, C. Y. Guo, Y. J. Zhang, Hanoh Lee, and **H. Q. Yuan\***, Antiferromagnetism with divalent Eu in EuNi<sub>5</sub>As<sub>3</sub>, *Phys. Rev. B* **95**, 024416 (2017).
59. L. Jiao, Z. F. Weng, M. Smidman, D. Graf, J. Singleton, E. Bauer, J. D. Thompson, and **H. Q. Yuan\***, Magnetic field induced Fermi surface reconstruction and quantum criticality in CeRhIn<sub>5</sub>, *Phil. Mag.* **10**, 1080 (2017).
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- 141.** **H. Q. Yuan**, D. Vandervelde, M. B. Salamon, P. Badica, and K. Togano, A penetration depth study on  $\text{Li}_2\text{Pd}_3\text{B}$  and  $\text{Li}_2\text{Pt}_3\text{B}$ , cond-mat/0506771, *AIP Conference Proceedings*, Vol. 850, p633 (2006).
- 142.** F.M. Grosche, D. Moroni-Klementowicz, R. Burrell, D. Fort, J. Awaka, S. Nagata, **H.Q. Yuan**, M. Deppe, C. Geibel, G. Sparn, F. Steglich, *NATO Science Series II: Mathematics, Physics and*

*Chemistry, Vol. 156, (Physics of Spin in Solids: Materials, Methods and Applications), Halilov, Samed (Ed.), Springer, 2004.*

- 143.** H. Q. Yuan, F. M. Grosse, W. Carrillo-Cabrera, S. Paschen, G. Sparn, M. Baenitz, Yu. Grin and F. Steglich, The Novel Superconducting Clathrates:  $\text{Ba}_6\text{Ge}_{25}$  and  $\text{Na}_2\text{Ba}_4\text{Ge}_{25}$ , *Lectures on the highly correlated electron systems VI*, Ed. F. Mancini. (Publisher: American Institute of Physics), p233 (2002) .
- 144.** J. X. Zhong and H. Q. Yuan, Statistics of energy levels and quantum dynamics in quasi-periodic tilings, *Qasicrystals: Proceedings of the 6th international conference*, Edited by S. Takeuchi and T. Fujiwara (World Scientific, Singapore, 1997), 184.

- **Book (Ph.D thesis)**

**H. Q. Yuan**, Superconductivity in Germanium Clathrates and Heavy-Fermi Systems, published by *Shaker Verlag* (2003), ISBN 3-8322-2137-9.

## Invited talks

### Invited conference talks

Over 90 invited conference talks, including the prestigious conferences of APS March Meeting, SCES, ICM, M2S and LT.

- 1 Sept. 20-25, 2020: *2020 International Conference on Strongly Correlated Electron Systems* Guarujá, Brazil (postponed due to COVID 19)
- 2 Aug. 15-22, 2020: *29th International Conference on Low Temperature Physics*, Sapporo, Japan (postponed due to COVID 19)
- 3 Feb. 9-14, 2020: *Quantum Materials Symposium 2020* (QMS2020) YongPyong, South Korea (cancelled due to COVID 19)
- 4 Nov. 28-29, 2020: Emergent states and their tuning in heavy fermions systems, *Zhejiang Workshop on Correlated Quantum Materials*, Hangzhou.
- 5 Oct. 23-26, 2020: Heavy fermions and superconductivity with reduced symmetry, 7<sup>th</sup> Heavy Fermion Forum, Hefei.
- 6 Sept. 18-19, Heavy fermions and non-centrosymmetric superconductors, 量子物质与应用发展战略研讨会, 合肥。
- 7 Nov. 26-27, 2019: Strange metal behavior & Quantum criticality in a pure ferromagnetic

- Kondo lattice, *2019 Sino-Swiss Workshop*, Dongguan.
- 8 Nov. 2-4, 2019: Ferromagnetic Quantum Phase Transition, *The 6th Heavy Fermion Forum*, Changsha.
  - 9 Sept. 23-28, 2019: Topological Properties in Correlated Semimetals: Half Heusler compounds REPtBi, *2019 International Conference on Strongly Correlated Electron Systems*, Okayama, Japan.
  - 10 Sept. 19-22, 2019: Ferromagnetic Quantum Critical Point in a Pure Kondo Lattice Compound CeRh<sub>6</sub>Ge<sub>4</sub>, *2019 Zhejiang Workshop on Correlated Matter*, Hangzhou.
  - 11 July 28-Aug. 02, 2019: Noncentrosymmetric superconductivity, *Thermal Physics on Exotic States of Condensed Matter* Symposium, CALCON 2019, Santa Fe, USA.
  - 12 July 17-19, 2019: Fully gapped superconductivity with broken time reversal symmetry, *2019 Theoretical & Experimental Magnetism Meeting and UK-China Workshop on Strongly Correlated Electron Systems*, Abington, UK.
  - 13 May 5-10, 2019: Quantum Critical Point in a Pure Ferromagnetic Kondo Lattice Compound CeRh<sub>6</sub>Ge<sub>4</sub>, *International Workshop on Quantum Ferromagnetism and Related Phenomena*, Dresden, Germany.
  - 14 April 12-14, 2019: Fully gapped superconductivity with broken time reversal symmetry, *Nature Conference on Emergent Materials and Devices: Electronic Structure and Properties*, Chengdu.
  - 15 Mar. 18-20, 2019: Fully gapped superconductivity with broken time reversal symmetry, *The 2nd International Workshop on Emergent Condensed-Matter Physics*, Hiroshima, Japan.
  - 16 Mar. 3-8, 2019: Evidence for topological semimetal in half-Heusler compounds REPtBi, *APS March Meeting*, Boston, USA.
  - 17 Jan. 19-20, 2019: Emergent Quantum States and their Manipulations in Heavy Fermion Systems, Symposium on Physics under High Magnetic Field, Wuhan.
  - 18 Nov. 24-25, 2018: Nodeless superconductivity with broken time reversal symmetry, *Symposium on Condensed Matter Physics and Inorganic Functional Materials*, Guangzhou.
  - 19 Nov. 9-11, 2018: Emergent Quantum States and their Manipulations in Heavy Fermion Systems, *1<sup>st</sup> Shaofeng Forum on Physics*, Xiangtan.
  - 20 Oct. 25-28, 2018: Nodeless superconductivity with broken time reversal symmetry, *2018 Fall Young Scientists Symposium* (Institute of Physics, CAS), Liyang.
  - 21 Oct. 19-21, 2018: Topological Kondo Semimetals, *5<sup>th</sup> Heavy Fermion Forum*, Ningbo.
  - 22 Oct. 8-10, 2018: Topological Kondo Semimetals, *2018 Hangzhou Workshop on Quantum Matter*, Hangzhou.
  - 23 Sept. 24-25, 2018: Nodeless superconductivity with broken time reversal symmetry, *International workshop on Unconventional Superconductors: New Paradigms for New Materials*, Abingdon, UK.
  - 24 August 19-24, 2018: Superconductivity with broken time reversal symmetry, *12<sup>th</sup> International Conference on Materials and Mechanisms of Superconductivity (M2S-XII)*, Beijing.

- 25 May 5-6,2018: Emergent Quantum States and their Manipulations in Heavy Fermion Systems, *Symposium on Quantum manipulations and Quantum Information*, Hangzhou.
- 26 July 18-20, 2018: Emergent Quantum States and their Manipulations in Heavy Fermion Systems, *3<sup>rd</sup> Chinese Symposium on the Physics and Chemistry of Actinides*, Baotou.
- 27 July 12-15, 2018: Emergent Quantum States and their Manipulations in Heavy Fermion Systems, *Chinese Materials Conference 2018*, Xiamen.
- 28 July 5-8, 2018: Topological Kondo Semimetals, *The 4<sup>th</sup> Conference on Condensed Matter Physics*, Shanghai.
- 29 June 10-14, 2018: Superconductivity lacking spatial inversion symmetry & time reversal symmetry, *CIMTEC 2018 - 8<sup>th</sup> Forum on New Materials*, Perugia, Italy.
- 30 May 8-9, 2018: Topological Kondo Semimetals, *7<sup>th</sup> Swiss-Sino Workshop*, Villigen PSI, Switzerland.
- 31 April 17-20, 2018: Topological Kondo Semimetals, *16<sup>th</sup> National Meeting on Low Temperature Physics*, Xinxiang.
- 32 Mar. 5-9, 2018: Topological Kondo Semimetals, *APS March Meeting*, Los Angeles,
- 33 Nov. 18-20, 2017: Non-centrosymmetric superconductivity, *The 4<sup>th</sup> Heavy Fermion Forum*, Mianyang.
- 34 July 17-21, 2017: Evidence for fully gapped d-wave superconductivity in CeCu<sub>2</sub>Si<sub>2</sub>, *SCES 2017*, Prague, Czech Republic.
- 35 June 25-27, 2017: Fully-gapped unconventional superconductivity, *The 3<sup>rd</sup> Conference on Condensed Matter Physics*, Shanghai.
- 36 Feb. 26-Mar. 1, 2017: Fully-gapped unconventional superconductivity, *International Workshop on Quantum Criticality and Novel Phases* (QCNP 2017), Berlin, Germany.
- 37 Nov. 5-6, 2016: Heavy fermion superconductivity and quantum criticality, *the 3<sup>rd</sup> Heavy Fermion Forum*, Beijing.
- 38 Sep. 1-4, 2016: Unconventional Superconductivity and quantum phase transitions, *Fall meeting of Chinese Physical Society*, Beijing.
- 39 Jul. 6-8, 2016: Fully-gapped unconventional superconductivity, *International Workshop on Recent Progress in Superconductivity*, PyeongChang, Korea.
- 40 Nov. 20-21, 2015: Fermi surface reconstruction and multiple quantum phase transitions in CeRhIn<sub>5</sub>, *International symposium on strongly correlated electron materials*, Houston.
- 41 Nov. 6-8, 2015: LaNiC<sub>2</sub> and LaNiGa<sub>2</sub>, a class of new unconventional superconductors? *2015 Autumn Young Scientists Symposium*, Institute of Physics, CAS and Zhejiang University, Hangzhou.
- 42 Oct. 22-25, 2015: Interplay of superconductivity and structural transition/CDW state, *International Symposium on Frontier of Superconductivity Research (V)*, Beijing.
- 43 Oct.14-15, 2015: Multiple quantum phase transitions in heavy fermions, *The 4<sup>th</sup> Workshop on Frontier Science in Pulsed High Magnetic Field*, Wuhan.
- 44 Aug. 23-28, 2015: Evidence for nodal superconductivity in quasi-one-dimensional K<sub>2</sub>Cr<sub>3</sub>As<sub>3</sub>, *The 11<sup>th</sup> International Conference on Materials and Mechanisms in Superconductivity (M2S-XI)*, Geveva, Switzerland.

- 45 July 5-10, 2015: Multiple quantum phase transitions in the antiferromagnet CeRhIn<sub>5</sub>, *The 20th International conference on Magnetism*, Barcelona, Spain.
- 46 April 1-3, 2015: Superconductivity and quantum criticality in CeTIn<sub>5</sub> (T=Ir, Rh), *14th National Meeting on Low Temperature Physics*, Hangzhou.
- 47 Mar. 8-15, 2015: Interplay of superconductivity and CDW state: a pressure study, the 8th *International Conference on the Study of Matter under Extreme Conditions* (SMEC 2015), Miami, Florida.
- 48 Mar. 8-15, 2015: Multiple quantum phase transitions in heavy fermion metals, *the 8th International Conference on the Study of Matter under Extreme Conditions* (SMEC 2015), Miami, Florida.
- 49 Dec. 22-23, 2014: Emergent Phases in Correlated Materials under extreme conditions, *International Conference on Recent Trends in Materials*, Aruppukottai, India.
- 50 Dec. 16-20, 2014: Weakly correlated non-centrosymmetric superconductors, *59th DAE Solid State Physics Symposium (DAE-SSPS)*, Vellore, Tamilnadu, India.
- 51 Aug. 24-27, 2014: Emergent quantum states in heavy fermion metals, *1<sup>st</sup> Chinese Symposium on the Physics and Chemistry of Actinides*, Mianyang.
- 52 Aug. 16-17, 2014: Emergent quantum states in Heavy fermion metals, *1<sup>st</sup> Heavy Fermion Forum*, Beijing.
- 53 June 28-29, 2014: Some new results of the heavy fermion compounds in extremely high magnetic field --Universal classifications of quantum phase transitions, *Symposium on Materials Physics and Life Science under high magnetic field*, Hefei.
- 54 Apr. 27-May 2, 2014: Quantum Criticality and Fermi Surface Reconstruction in CeRhIn<sub>5</sub>, *The 4th International Conference on Superconductivity and Magnetism (ICSM 2014)*, Antalya, Turkey.
- 55 Oct. 20-24, 2013: Superconductivity in weakly correlated non-centrosymmetric superconductors, *The 13<sup>th</sup> national conference on low temperature physics*, Zunyi.
- 56 Oct. 13-17, 2013: Field induced localized-itinerant transition in CeRhIn<sub>5</sub>, *Sino-German Workshop on Kondo and Mott Physics in Correlated Matter*, Hangzhou.
- 57 Oct. 10-12, 2013: New aspects of quantum criticality in CeTIn<sub>5</sub> (T=Rh, Ir), *First Russia-China Joint Workshop on Condensed Matter Physics*, Beijing.
- 58 Aug. 5-9, 2013: Observation of field-induced Fermi-surface reconstruction in CeRhIn<sub>5</sub>, *2013 International conference on strongly correlated electron systems (SCES 2013)*, Tokyo (contributed).
- 59 July 14-17, 2013: Electron localization/delocalization transition in heavy fermions, *Summer workshop on Condensed Matter Physics*, Zhoushan.
- 60 May 6-10, 2013: Weakly-correlated non-centrosymmetric superconductors, *International workshop on unconventional superconductivity: Its varieties and possible uses*, Shanghai.
- 61 Apr. 22-25, 2013: Field-induced quantum phase transitions and dramatic changes of Fermi-surface in CeRhIn<sub>5</sub>, *2013 Hangzhou Workshop on Quantum Matter*, Hangzhou.
- 62 Jan. 23-26, 2013: Tunable interplay between 3d- and 4f-electrons in iron pnictides, *The 3<sup>rd</sup> US/China on novel superconductors*, Hongkong.

- 63 Jul. 5-7, 2012: Dramatic changes of Fermi surface induced by a magnetic field inside the antiferromagnetic phase of CeRhIn<sub>5</sub>, *International Conference on Heavy Electrons and Novel Quantum Phases*, Gyeongju, Korea.
- 64 Jul. 3-6, 2012: Iron based superconductors: Physical properties in high magnetic fields, *The 10<sup>th</sup> International conference on Research in High Magnetic Fields*, Wuhan.
- 65 Apr.16-17, 2012: What role does the spin-orbit coupling play in non-centrosymmetric superconductors? *HK University-Zhejiang Uni mini-workshop*, Hongkong.
- 66 Apr. 1-5, 2012: Quantum Phase Transitions in CeTIn<sub>5</sub> (T=Ir, Rh), *Sino-German Bilateral Workshop on Emergent Phases on Correlated and Topological Matter*, Hangzhou.
- 67 Jan. 7-9, 2012: Field-induced Fermi surface reconstruction near the magnetic quantum critical point in CeRhIn<sub>5</sub>, *Workshop on Heavy Fermion Physics: Perspective and Outlook*, IOP, CAS.
- 68 Nov. 1-3, 2011: Recent Progresses on Heavy Fermion Superconductivity, *11<sup>th</sup> Chinese Conference on Superconductivity*, Hangzhou.
- 69 Aug. 31, 2011: Extreme Conditions and Heavy Fermion Research, *Xiangshan Science Meeting*, Beijing.
- 70 Aug. 10-17, 2011: Nodal gap structure in weakly-correlated non-centrosymmetric superconductors, *26th International Conference on Low Temperature Physics*, Beijing.
- 71 June 12-17, 2011: Field-induced quantum criticality in CeRhIn<sub>5</sub>, - a study of specific heat and dHvA effect in a pulsed magnetic field, *The 66<sup>th</sup> Calorimetry Conference*, Hawaii.
- 72 May 22, 2011: Superconductivity lacking inversion symmetry, *Topological Physics Symposium*, Putuo.
- 73 Apr. 22, 2011: Field-induced quantum criticality in heavy fermion CeRhIn<sub>5</sub>, *The 2nd International Workshop on Frontier Science in Pulsed High Magnetic Fields*, Wuhan.
- 74 Apr. 12, 2011: Field-induced quantum criticality in CeRhIn<sub>5</sub>, *Hangzhou International workshop on Quantum Matter*, Hangzhou.
- 75 Sep. 2010: Quantum Criticality and Fermi Surface in CeRhIn<sub>5</sub>, *International conference on heavy electrons*, Tokyo.
- 76 May 2010: Evidence for the admixture of spin singlet and spin-triplet pairing states in non-centrosymmetric superconductors, *The 9th international conference on spectroscopies in novel superconductors*, Shanghai.
- 77 Jun. 2010: The magnetic (structural) transition in iron pnictides, *The 8th BFHTs*, Jiuzhaigou.
- 78 Dec. 2009: Unusual high field properties of the iron pnictides, *Symposium on iron-based superconductors*, Beijing.
- 79 Oct. 2009: Superconductivity in heavy fermions & iron pnictides (chalcogenides): a study under extreme conditions, *2009 Hangzhou workshop on quantum matter*, Hangzhou.
- 80 Sep. 2009: Quantum Criticality in Heavy Fermion Metals, *The 2009 fall meeting of*

*Chinese Physics Society*, Shanghai.

- 81 Aug. 2009, Anomalous physical properties in iron-based superconductors, *The 6th Joint Meeting of Chinese Physicists Worldwide*, Lanzhou.
- 82 Jul. 2009: Anomalous physical properties in iron-based superconductors, *The 12<sup>th</sup> National conference on low temperature physics*, Qingdao.
- 83 Jul. 2009: Anomalous physical properties in iron-based superconductors, *The 5th Singapore-China Joint Symposium on Research Frontiers in Physics*, Singapore.
- 84 Jul 2009: Physical properties of the iron-based superconductors in very high magnetic fields, *The 8th International Conference on Condensed Matters Theory and Computational Materials Science*, Xiangtan.
- 85 May 2009: Superconductivity & Quantum Criticality in Heavy Fermion Metals, *Beijing Forum on high T<sub>c</sub> superconductivity*, Beijing.
- 86 Mar. 2009: Physical properties of the iron-based superconductors in very high magnetic fields, *WHMFC' 09 International Workshop on "Frontier Science in Pulsed High Magnetic Field"*, Wuhan.
- 87 Oct. 2008: Unconventional superconductivity---From heavy fermions to iron-based high-T<sub>c</sub> superconductors, *Cross-strait conference on statistical & theoretical condensed matter physics*, Jinhua, China.
- 88 Aug. 2008: Mini-workshop on the Fe-based superconductors, Hangzhou, Zhejiang.
- 89 May 2008: International workshop on non-centrosymmetric superconductors, ETH Zurich.
- 90 Dec. 2007: Superconductivity on the edge of valence instability, *2nd International Workshop on "Materials Science and Nano-Engineering"*, Awajii Island, Japan
- 91 Sep. 2007: Superconductivity on the edge of valence instability, *The 2007 Gordon Conference on Superconductivity*, Les Diablerets, Switzerland.
- 92 Sep. 2007, Superconductivity and quantum criticality in heavy fermion systems, *Chinese Physical Society Annual Meeting*, Nanjing, China.
- 93 May 2007, Novel pairing state in non-centrosymmetric superconductors: Li<sub>2</sub>(Pd<sub>1-x</sub>Pt<sub>x</sub>)<sub>3</sub>B, *International Conference on Strongly Correlated Electron System* (2007), Houston, US (selected contributed talk).
- 94 Feb. 2007: The winter workshop of APCTP (Asia Pacific Center for Theoretical Physics) on the strongly correlated electron system (declined).
- 95 Jul, 2006: *Unconventional superconductivity and quantum phase transitions in Ce-based heavy fermion metals*, The 8th International Conference on Materials and Mechanisms of Superconductivity (M2S-HTSC VIII), Dresden.
- 96 Nov. 2005: “S-triplet” order in superconductors without inversion symmetry: Li<sub>2</sub>Pd<sub>3</sub>B and Li<sub>2</sub>Pt<sub>3</sub>B, the 2005 ICAM annual conference, Santa Fe.
- 97 Nov. 2004, *Quantum Criticality and Superconductivity in Heavy Fermion Systems*, the 2004 ICAM annual conference, Santa Fe.

**Invited Seminars/Colloquia**

- 98 Nov. 17, 2020: *Delicate electronic interactions*, Physics Colloquium, Central South University.
- 99 Nov. 16, 2020: *Delicate electronic interactions*, Physics Colloquium, Hubei Normal University.
- 100 Nov. 27, 2019: *Emergent Quantum States in Strongly Correlated Electron Systems*, Condensed Matter Physics Seminar, Southern University of Science and Technology.
- 101 Oct.4, 2019: *Noncentrosymmetric superconductivity*, Condensed Matter Physics Seminar, Nanyang Technological University.
- 102 Aug.23, 2019: *Noncentrosymmetric superconductivity*, Condensed Matter Physics Seminar, UCLA.
- 103 Aug.21, 2019: *Noncentrosymmetric superconductivity*, Condensed Matter Physics Seminar, UC Irvine.
- 104 June 12, 2019: *Exotic quantum state and its manipulation in correlated materials*, Anhui University.
- 105 June 12, 2019: *Quantum phase transition and superconductivity in heavy fermion systems*, High Magnetic Field Laboratory, CAS.
- 106 Nov.23, 2018, *Emergent Quantum States in Strongly Correlated Electron Systems*, South China Normal University.
- 107 Nov.15, 2018, *Correlated Electron Systems*, Hangzhou Dianzi University.
- 108 Nov.11, 2018, *Correlated Electron Systems*, Hunan University of Humanities, Science and Technology.
- 109 Nov. 9, 2018, *Correlated Electron Systems*, Hunan Normal University.
- 110 Sept. 28, 2018, *Topological Kondo Semimetals*, Quantum Matter Seminar, Cambridge University.
- 111 April 4, 2018, *Application of Extreme Conditions on Strongly Correlated Electron System*, Suzhou University.
- 112 Mar. 13, 2018, *Topological Kondo Semimetals*, Condensed Matter Seminar, LANL.
- 113 Dec. 2, 2016: *Applications of extreme conditions in heavy fermions: unconventional superconductivity and quantum phase transitions*, Jilin University.
- 114 June 3, 2016: *Extreme conditions and correlated electrons*, Hunan Normal University.
- 115 May 23, 2016: *Extreme conditions and correlated electrons*, Southeast University.
- 116 Nov. 17, 2015, *Interplay of superconductivity and structural transition/CDW state*, Condensed Matter Seminar, University of Wisconsin-Milwaukee.
- 117 Sept. 24, 2015, *Apply extreme conditions to heavy fermions*, China Academy of Engineering Physics.
- 118 Sept. 19, 2015: *Extreme Conditions and Its Applications in Correlated Materials*, Seminar,

Zhejiang Science and Technology University.

- 119 July 27, 2015: *Multiple Quantum Phase Transitions in Heavy Fermion Metals* TRR 80 Seminar, Augsburg Uni. , Germany。
- 120 June 9, 2015: *Quantum Criticality & Superconductivity in Heavy Fermion Metals, Seminar*, Institute of Physics, CAS.
- 121 May 4, 2015: *Extreme Conditions and Electron Correlations*, Seminar, Central South University.
- 122 Dec. 19, 2014: *Emergent Phases of Correlated Materials under Extreme Conditions*, Bharathidasan University, India.
- 123 Dec. 2013: *Applications of extreme conditions to correlated materials*, Shanghai Institute of microsystems and information technology, Chinese Academy of Sciences.
- 124 Dec. 2013: Applications of extreme conditions in correlated matter, Physics Colloquium, Ningbo University.
- 125 June 2013: Applications of extreme conditions in correlated matter, Physics Colloquium, Hunan University.
- 126 June 2013: Applications of extreme conditions in correlated matter, Physics Colloquium, Xiangtan University.
- 127 Sept. 2011: Superconductivity, Magnetism and Quantum Criticality in Correlated Materials, Physics Colloquium, POSTECH, South Korea.
- 128 Sept. 2011: Superconductivity, Magnetism and Quantum Criticality in Correlated Materials, Condensed Matter Seminar, SKKU, South Korea.
- 129 May, 2011: Heavy Fermion superconductivity and quantum criticality, Lecture series, National Laboratory for superconductivity, IOP, Beijing.
- 130 Dec. 2010: Seminar, Sun Yat-sen University.
- 131 Nov. 2010: Seminar, Huazhong University of Science and Technology.
- 132 May 2010: Physics Colloquium, Shanghai Jiaotong University.
- 133 Dec. 2009: Condensed Matter Physics Seminar, University of Science and Technology of China.
- 134 Dec. 2009: Seminar, Hefei high magnetic field lab, CAS.
- 135 Dec. 2009: Engineering forum, Beijing University of Technology.
- 136 Nov. 2009: Physics Colloquium, Zhejiang normal University.
- 137 Jun 2009: Physics Colloquium, Zhejiang University.
- 138 Apr. 2009: Physics Colloquium, Wuhan University.
- 139 Apr. 2008: Condensed Matter seminar, The Penn State University.
- 140 Dec. 2007: Aoyama-Gakuin University.
- 141 Dec. 2007: CCSE, Japan Atomic Energy Agency

- 142 Sep. 2007: Department of Physics, Zhejiang University.
- 143 Feb. 2007: Oak Ridge National Laboratory.
- 144 Feb. 2007: Condensed Matter Seminar, Michigan State University.
- 145 Jan. 2007: Condensed Matter Seminar, University of Maryland (College Park).
- 146 Jan. 2007: Physics colloquium, Rice University.
- 147 Jan. 2007: Argonne National Laboratory.
- 148 Sep. 2006: Group seminar (Laura H. Greene), UIUC.
- 149 Aug. 2006: Physics colloquium, Max-Planck Institute for Chemical Physics of Solids, Dresden.
- 150 Jul. 2006: Physics colloquium, Xiangtan University.
- 151 July 2005: Group Seminar (MST-10), Los Alamos National Laboratory.
- 152 Nov. 2003: Physics colloquium, Xiangtan University.
- 153 Nov. 2003: Physics colloquium, Hunan Normal University.
- 154 Oct. 2003: Institute of Applied Physics and Didactics, TU-Dresden.
- 155 June 2003: Low Temperature Physics Group, Cavendish Laboratory, Cambridge.
- 156 June 2003: Condensed Matter Physics Group, University of Bristol.
- 157 June 2003: Low Temperature Physics Group, Royal Holloway, University of London.
- 158 June 2003: Condensed Matter Physics Group, University of St. Andrews.
- 159 Dec. 2002: Group meeting of Solid State Physics Group, MPI-CPFS.
- 160 Nov. 2001: Group meeting of Solid State Physics Group, MPI-CPFS.