CURRICULUM VITAE

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19. August 2020
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Personal Data

Citizenship	German
Marital status	Bachelor
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Current position

Professor (full) of Physics, Zhejiang University, Hanghzou (China).

Research interests

Theoretical condensed matter physics emphasizing strongly correlated systems in and out of equilibrium:
– non-equilibrium and critical dynamics, transport, time-dependent phenomena
– nano-structured systems, interfaces, quantum impurities
–computational, self-consistent and renormalization group methods: large-N, NCA, NRG, quantum Monte Carlo, dynamical mean field theory and its extensions
–unconventional superconductivity and magnetism
– quantum phase transitions, non-Fermi liquids and exotic ground states in quantum matter.

Professional Experience

since June 2018	Professor (full) at the Zhejiang Institute for Modern Physics, Zhejiang University, Hangzhou, China
August 2014-May 1918	Professor (full) at the Center for Correlated Matter, Zhejiang University, Hangzhou, China
02/2009– 07/2014	Head of the joint independent research group of the Max Planck Institute for the Physics of Complex Systems and Max Planck Institute for Chemical Physics of Solids, Dresden
10/2010–02/2011	Visiting professor (Vertretungsprofessur) "Theoretische Physik II/Computational Physics", TU Ilmenau, Germany
04/2008–01/2009	Research scientist, Department of Physics & Astronomy, Rice University, Houston, USA
04/2003-03/2008	Postdoctoral researcher, Department of Physics & Astronomy, Rice University, Houston, USA
03/2002-03/2003	Postdoctoral research assistant, Technical University of Karlsruhe (now KIT), Germany

Education

spring 2002	Dr. rer. nat. (PhD) in physics, Technical University of Karlsruhe (now KIT), Germany; dissertation adviser: Prof. Dr. P. Wölfle Thesis title: Conserving T-matrix approach to quantum impurities with application to quantum point contacts
fall 1997	Diploma in physics, University of Würzburg, Germany; diploma adviser: Prof. Dr. W. Hanke Thesis title: Einfluss der Integrabilität auf die Transporteigenschaften des Hubbard Modells
spring 1995	Master of Science, State University of New York at Albany; adviser: Prof. A. Inomata (PhD) research topic: generalized Heisenberg algebras, properties of free gas of quons
fall 1993	Vordiplom Physics (equivalent to bachelor of science), University of Würzburg, Germany

Languages

German	Mother tongue
English	Fluent
French	Fair
Chinese	Beginner

Teaching

- ⋆ General Physics I, Chu Kochen Honors College, Zhejiang University, Spring 2020
- ⋆ Solid State Theory II, Zhejiang University, Spring 2020
- ⋆ General Physics I, Chu Kochen Honors College, Zhejiang University, Spring 2019
- ⋆ Quantum Phases & Quantum Phase Transitions, Zhejiang University, Spring 2018
- ⋆ Solid State Theory I, Zhejiang University, Fall 2017, Spring 2017, Spring 2016
- ⋆ Quantum Many-Body Systems, Zhejiang University, Fall 2016
- ⋆ Introduction into Advanced Topics of Condensed Matter Physics, Zhejiang University, Fall 2014
- ⋆ Advanced Topics in Many Particle Physics, TU Dresden, Summer 2012

⋆ Symmetries in Physics (in German), TU Ilmenau, Winter 2010/2011

⋆ Theoretical Solid State Physics with Exercises (in German), TU Ilmenau, Winter 2010/2011

⋆ Group Theory for Physicists (in English), TU Dresden, Summer 2010

Fellowships and Honors

- DFG Research Fellowship (04/2003-10/2004),
- Robert A. Welch Foundation Postdoctoral Fellowship,
- Adjunct Assistant Professor, Department of Physics & Astronomy, Rice University, Texas (2009-2014),
- Sponsored by the Innovation Fund of the President of Max Planck Society (2009-2014),
- Visiting professor "Theoretische Physik II/Computational Physics", TU Ilmenau (October 2010-February 2011)
- Zhejiang 1000 Talent Provincial Award 2014（浙江省海外高层次人才引进计划外专千人）
- Adjunct Associate Professor, Department of Physics & Astronomy, Rice University, Texas (2014- 2021),
- Selected as 'Excellent Individual of the Department' in 2016
- Visiting Professor of the State Key Laboratory of Surface Physics of Fudan University (March 2017 - March 2018)
- Selected as 'Excellent Individual of the Department' in 2019
- Visiting Professor of the Department of Physics, National Chiao Tung University, Taiwan (July 2019 - January 2020)

Organization of International Conferences, Schools & Workshops

⋆ Co-chair and organizer (together with A. Pelster) of the
"Bad Honnef Physics School Methods of Path Integration in Modern Physics",
August 25–31, 2019 (Bad Honnef, Germany).

`https://www.dpg-physik.de/veranstaltungen/2019/bad-honnef-physics-school-methods-of-path-integration-`

⋆ Co-chair and organizer (together with Z. Xu, Q. Si, Q. Chen) of the
"2018 Hangzhou Workshop on Quantum Matter"
October 8–10, 2018 (Zhejiang University, Hangzhou, China).

⋆ Co-chair and organizer (together with P. Jizba, L. Schulman, J. Zaanen) of the conference
"Path Integration in Complex Dynamical Systems",
February 06–10, 2017 (Lorentz Center, Leiden, The Netherlands).

⋆ Co-chair and organizer (together with S. Bühler-Paschen, R. Grimm) of the conference
"Quantum Critical Matter - from Atoms to Bulk (QCM14)",
August 18–23, 2014 (Obergurgl University Center, Austria).

⋆ Co-chair and organizer (together with C. Bolech, P. Wölfle) of the
"Advanced School and
International Workshop on Developments and Prospects in Quantum Impurity Physics",
May 30–June 10, 2011 (Dresden, Germany).

Professional and Community Service

- ⋆ Jury member for the Labex (Laboratoires d'Excellence) initiative of the French National Research Agency (ANR), November 2018
- ⋆ Guest editor of the Phil. Mag. special issue 'Correlated Electrons 2016, volume 97 (2017)
- ⋆ Guest editor of the J. Phys.: Conf. Ser. volume 807 (2017) "International Conference on Strongly Correlated Electron Systems (SCES 2016)" (together with Guang-Han Cao, and Tuson Park)
- ⋆ Chair of the Publication Committee of the 2016 International Conference on Strongly Correlated Electron Systems (SCES2016).
- ⋆ Jury member of the Labex (Laboratoires d'Excellence) initiative of the French National Research Agency (ANR), June 2015
- ⋆ Jury member for the 'Nachwuchsförderprogram 2013' of the Carl-Zeiss Foundation
- ⋆ Guest editor of the pssb special issue "Quantum Criticality and Novel Phases", volume 250, Issue 3, 2013 (together with O. Stockert & S. Wirth)
- ⋆ Member of the Advisory Committee of International Conference on Heavy Electrons and Novel Phases, July 14–17, 2012(Suwon, Korea),
- ⋆ Jury member for the labex initiative "Laboratories of Excellence" (LABEX 2011) for the French National Research Agency (ANR), 2011-2012
- ⋆ Member of the Publication Committee of "Quantum Criticality and Novel Phases" (QCNP 2012), August 26–29, 2012 (Dresden, Germany),
- ⋆ Member of the American Physical Society (APS),
- ⋆ Member of the Deutsche Physikalische Gesellschaft (DPG),
- ⋆ Referee for Science, Nature Physics, Nature Communications, Physical Review Letters, Proceedings of the National Academy of Science (USA), Science Advances, Scientific Reports, EPL, Physical Review B, Journal of Physics: Condensed Matter, Philosophical Magazine, Physica B, Physica Status Solidi, Chinese Physics Letters, Office of Basic Energy Sciences (BES) within the Department of Energy (DOE), German Research Foundation (DFG), Schweizerischer Nationalfonds (SNF), Georgia National Science Foundation (GNSF).

Scientific Output

- ⋆ Over 80 publications in peer-reviewed international scientific journals including 1 Review of Modern Physics, 2 Nature, 1 Nature Physics, 1 Nature Communications, 1 forthcoming Nature Communications, 2 Proceedings of the National Academy of Sciences of the USA, 1 Nanoscale, 21 Physical Review Letters
- ⋆ 9 book chapters
- ⋆ More than 40 invited talks at international conferences, workshops, & schools
- ⋆ More than 50 invited seminars/colloquia

Publications

1. *Nonequilibrium phases and phase transitions of the XY-model*
   T. O. Puel, Stefano Chesi, **Stefan Kirchner**, and P. Ribeiro
   In preparation
2. *Distinct Kondo Screening Behaviors in Heavy Fermion Filled Skutterudites with $4f_1$ and $4f_2$ Configurations*
   X. Lou, H. C. Xu, T. L. Yu, Y. H. Song, C. H. P. Wen, W. Z. Wei, A. Leithe-Jasper, Z. F. Ding, L. Shu, **S. Kirchner**, R. Peng, and D. L. Feng
   Submitted to Phys. Rev. Lett. and arXiv:2006.05093 (2020).

3. *Quantum criticality in the pseudogap Bose-Fermi Kondo model: entropy, scaling, and the g-theorem*
   Zuodong Yu, Farzaneh Zamani, Pedro Ribeiro, **Stefan Kirchner**
   Submitted to Phys. Rev. B and arXiv:2006.02171 (2020).

4. *Observation of triplet superconductivity in $CoSi_2/TiSi_2$ heterostructures*
   Shao-Pin Chiu, C. C. Tsuei, Sheng-Shiuan Yeh, **Stefan Kirchner** and Juhn-Jong Lin
   Submitted (2020).

5. *"Quantum phase transition in a two-dimensional Kondo-Heisenberg model: a dynamical Schwinger-boson large-N approach"*
   J.-F. Wang, Y.-Y. Chang, C.-Y. Mou, **S. Kirchner**, and C.-H. Chung
   To appear in Phys. Rev. B (2020).

6. *Oxygen vacancy-driven orbital multichannel Kondo effect in Dirac nodal line metals IrO_2 and RuO_2*
   Sheng-Shiuan Yeh, Ta-Kang Su, An-Shao Lien, Farzaneh Zamani, Johann Kroha, Chao-Ching Liao, **Stefan Kirchner**, and Juhn-Jong Lin
   To appear in Nat. Commun. and arXiv:1910.13648 (2020).

7. *Two-Channel Kondo Physics: From Engineered Structures to Quantum Materials Realizations*
   Stefan Kirchner
   Invited review
   Adv. Quantum Technol. **3**, Issue 4 (2020)
   doi:10.1002/qute.201900128

8. *Dynamical scaling of charge and spin responses at a Kondo destruction quantum critical point*
   Ang Cai, Zuodong Yu, Haoyu Hu, **Stefan Kirchner**, and Qimiao Si
   Phys. Rev. Lett. **124**, 027205 (2020).

9. *Heavy-electron quantum criticality and single-particle spectroscopy*
   S. Kirchner, Q. Y. Chen, S. Bühler-Paschen, S. Wirth, D. L. Feng, Joe D. Thompson and Q. Si
   Rev. Mod. Phys. **92**, 011002 (2020).

10. *A symmetry-breaking quantum phase transition far from equilibrium*
    T. O. Puel, S. Chesi, **S. Kirchner**, & P. Ribeiro
    Phys. Rev. Lett. **122**, 235701 (2019).

11. *Classical and quantum liquids induced by quantum fluctuations*
    Miguel M. Oliveira, Pedro Ribeiro and **Stefan Kirchner**
    Phys. Rev. Lett. **122**, 197601 (2019).

12. *Electronic structure and 4 f-electron character in Ce_2PdIn_8 studied by angle-resolved photoemission spectroscopy*
    Q. Yao, D. Kaczorowski, C. H. P. Wen, X. H. Niu, R. Peng, H. C. Xu, P. Dudin, **S. Kirchner**, Q. Y. Chen, D. W. Shen, and D. L. Feng
    Phys. Rev. B **99**, 081107(R) (2019).

13. *Strange superconductivity near an antiferromagnetic heavy fermion quantum critical point*
    Y. Y. Chang, F. Hsu, **S. Kirchner**, C. Y. Mou, T. K. Lee, and C. H. Chung
    Phys. Rev. B **99**, 094513 (2019).

14. *Enhancement of the effective mass at high magnetic fields in $CeRhIn_5$*
    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, H. Q. Yuan
    Phys. Rev. B **99**, 045127 (2019).

15. *Interplay between unconventional superconductivity and heavy-fermion quantum criticality: $CeCu_2Si_2$ versus $YbRh_2Si_2$*
    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
    Phil. Mag. **98**, 2930-2963 (2018).

16. *Predicting the conductance of strongly correlated molecules: the Kondo effect in perchlorotriphenylmethyl/Au junctions*
W. H. Appelt, A. Droghetti, L. Chioncel, M. M. Radonjic, E. Muñoz, **S. Kirchner**, D. Vollhardt, and I. Rungger
Nanoscale **10**, 17738 (2018).

17. *Evolution of the Kondo lattice and non-Fermi liquid excitations in a heavy-fermion metal*
S. Seiro, L. Jiao, **S. Kirchner**, S. Hartmann, S. Friedemann, C. Krellner, C. Geibel, Q. Si, F. Steglich and S. Wirth
Nat. Commun. **9**, 3324 (2018).

18. *Tracing crystal-field splittings in the rare earth-based intermetallic $CeIrIn_5$*
Q. Y. Chen, C. H. P. Wen, Q. Yao, K. Huang, Z. F. Ding, L. Shu, X. H. Niu, Y. Zhang, X. C. Lai, Y. B. Huang, G. B. Zhang, **S. Kirchner**, D. L. Feng
Phys. Rev. B **97**, 075149 (2018).

19. *Band dependent inter-layer f-electron hybridization in $CeRhIn_5$*
Q. Y. Chen, D. F. Xu, X. H. Niu, R. Peng, H. C. Xu, C. H. P. Wen, X. Liu, 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**, D. L. Feng
Phys. Rev. Lett. **120**, 066403 (2018).

20. *Correlated Electrons 2016 - Preface*
Stefan Kirchner
Phil. Mag., **97** 3397-3398 (2017).

21. *Preface: International Conference on Strongly Correlated Electron Systems (SCES 2016)*
Stefan Kirchner, Guang-Han Cao, and Tuson Park,
J. Phys.: Conf. Ser. 807 011001 (2017).

22. *Direct observation of how the heavy fermion state develops in $CeCoIn_5$*
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, **S. Kirchner**, H. Q. Yuan, and D. L. Feng
Phys. Rev. B **96**, 045107 (2017).

23. *Reply to Comment on 'Two-channel Kondo physics due to As vacancies in the layered compound $ZrAs_{1.58}Se_{0.39}$'*
T. Cichorek, L. Bochenek, M. Schmidt, R. Niewa, A. Czulucki, G. Auffermann, Frank Steglich, R. Kniep, & **Stefan Kirchner**,
Phys. Rev. Lett. **118**, 259702 (2017).

24. *Impact of atomic-scale contact geometry on Andreev reflection*
J. Brand, P. Ribeiro, N. Néel, **S. Kirchner** and J. Kröger
Phys. Rev. Lett. **118**, 107001 (2017).

25. *The renormalized superperturbation theory (rSPT) approach to the Anderson model in and out of equilibrium*
Enrique Muñoz, Farzaneh Zamani, Lukas Merker, Theo A. Costi, and **Stefan Kirchner**
J. Phys.: Conf. Ser., **807**, 092001 (2017).

26. *Interaction-tuned Anderson versus Mott localization*
Andrey E. Antipov, Younes Javanmard, Pedro Ribeiro, and **Stefan Kirchner**
Phys. Rev. Lett. **117**, 146601 (2016).

27. *Two-channel Kondo physics due to As vacancies in the layered compound $ZrAs_{1.58}Se_{0.39}$*
T. Cichorek, L. Bochenek, M. Schmidt, R. Niewa, A. Czulucki, G. Auffermann, Frank Steglich, R. Kniep, and **Stefan Kirchner**
Phys. Rev. Lett. **117**, 106601 (2016).

28. *The functional integral formulation of the Schrieffer–Wolff transformation*
F. Zamani, P. Ribeiro, and **S. Kirchner**
New J. Phys. **18**, 063024 (2016).

29. *The distribution of work performed on a NIS junction*
J. Santos, P. Ribeiro, and **S. Kirchner**
New J. Phys. **18**, 023007 (2016).

30. *Non-linear quantum critical dynamics and fluctuation-dissipation ratios far from equilibrium*
F. Zamani, P. Ribeiro, and **S. Kirchner**
J. Magn. Magn. Mat., **400**, 7-12 (2016).

31. *Kondo Destruction in Heavy Fermion Quantum Criticality and the Photoemission Spectrum of $YbRh_2Si_2$*
S. Paschen, S. Friedemann, S. Wirth, F. Steglich, **S. Kirchner** and Q. Si
J. Magn. Magn. Mat., **400**, 17-22 (2016).

32. *Steady-State Dynamics and Effective Temperature for a Model of Quantum Criticality in an Open System*
P. Ribeiro, F. Zamani, and **S. Kirchner**
Phys. Rev. Lett. **115**, 220602 (2015).

33. *Kondo Destruction and Quantum Criticality in Kondo Lattice Systems*
Qimiao Si, J. H. Pixley, Emilian Nica, Seiji J. Yamamoto, Pallab Goswami, Rong Yu, **Stefan Kirchner**
J. Phys. Soc. Jpn. **83**, 061005 (2014).

34. *Structural investigations of $CeIrIn_5$ and $CeCoIn_5$ on macroscopic and atomic length scales*
S. Wirth, Y. Prots, M. Wedel, S. Ernst, **S. Kirchner**, Z. Fisk, J. D. Thompson, F. Steglich, and Y. Grin,
J. Phys. Soc. Jpn. **83**, 061009 (2014).

35. *Reply to "Comment on 'Conductance scaling in Kondo-correlated quantum dots: Role of level asymmetry and charging energy' "*
L. Merker, **S. Kirchner**, E. Muñoz and T. A. Costi,
Phys. Rev. B **90**, 077102 (2014).

36. *Evidence for a Kondo destroying quantum critical point in $YbRh_2Si_2$*
Frank Steglich, Heike Pfau, Stefan Lausberg, Peijie Sun, Ulrike Stockert, Manuel Brando, Sven Friedemann, Cornelius Krellner, Christoph Geibel, Steffen Wirth, **Stefan Kirchner** and Qimiao Si,
J. Phys. Soc. Jpn. **83**, 061001 (2014).

37. *Competing phases of the Hubbard model on a triangular lattice: Insights from the entropy*
Gang Li, Andrey Antipov, Alexey N. Rubtsov, **Stefan Kirchner**, and Werner Hanke
Phys. Rev. B **89**, 161118(R) (2014).

38. *Critical Exponents of Strongly Correlated Fermion Systems from Diagrammatic Multi-Scale Methods*
Andrey E. Antipov, Emanuel Gull, and **Stefan Kirchner**,
Phys. Rev. Lett. **112**, 226401 (2014).

39. *Conductance scaling in Kondo correlated quantum dots: role of level asymmetry and charging energy*
L. Merker, **S. Kirchner**, E. Muñoz, and T. Costi,
Phys. Rev. B **87**, 165132 (2013).

40. *Quantum Criticality and Novel Phases Preface*
Stefan Kirchner, Oliver Stockert, and Steffen Wirth
Phys. Status Solidi B **250**, 424 (2013) (special issue "Quantum Criticality and Novel Phases").

41. *Reply to Universal out-of-equilibrium transport in Kondo-correlated quantum dots: renormalized dual fermions on the Keldysh contour*
Enrique Muñoz, Carlos J. Bolech, and **Stefan Kirchner**
Phys. Rev. Lett. **111**, 089702 (2013).

42. *Gate-tuned two-channel Kondo screening by graphene leads: Universal scaling of the nonlinear conductance*
Tsung-Han Lee, Kenneth Yi-Jieh Zhang, Chung-Hou Chung, and **Stefan Kirchner**
Phys. Rev. B **88**, 085431 (2013).

43. *Local quantum criticality out of equilibrium - effective temperatures and scaling in the steady state regime*
Pedro Ribeiro, Qimiao Si, and **Stefan Kirchner**
Europhys. Lett. **102**, (2013) 50001.

44. *Competition between fermion- and boson-dominated quantum criticality in the pseudogap Bose-Fermi Anderson and Kondo models*
J. H. Pixley, **Stefan Kirchner**, Kevin Ingersent, and Qimiao Si
Phys. Rev. B, **88**, 245111 (2013).

45. *Transport Characterization of Kondo-correlated Single Molecule Devices*
G. D. Scott, D. Natelson, **S. Kirchner**, and E. Muñoz
Phys. Rev. B **87**, 241104(R) (2013).

46. *Universal out-of-equilibrium transport in Kondo-correlated quantum dots: renormalized dual fermions on the Keldysh contour*
Enrique Muñoz, Carlos J. Bolech, and **Stefan Kirchner**
Phys. Rev. Lett. **110**, 016601 (2013).

47. *Quantum criticality in the two-channel pseudogap Anderson model: A test of the non-crossing approximation*
Farzaneh Zamani, Tatha Chowdhury, Pedro Ribeiro, Kevin Ingersent, and **Stefan Kirchner**
Phys. Status Solidi B **250**, 547 (2013) (special issue "Quantum Criticality and Novel Phases").

48. *Identifying Kondo orbitals through spatially resolved STS*
Andrey Antipov, Pedro Ribeiro, Hans Kroha, and **Stefan Kirchner**
Phys. Status Solidi B **250**, 562 (2013) (special issue "Quantum Criticality and Novel Phases").

49. *Nonlinear thermoelectric response of quantum dots: renormalized dual fermions out of equilibrium*
Stefan Kirchner, Farzaneh Zamani, and Enrique Muñoz
in New Materials for Thermoelectric Applications: Theory and Experiment
Springer Series: NATO Science for Peace and Security Series - B: Physics and Biophysics,
Veljko Zlatic (Editor), Alex Hewson (Editor). ISBN: 978-94-007-4983-2 (2013).

50. *Routes to heavy-fermion superconductivity*
F. Steglich, O. Stockert, S. Wirth, C. Geibel, H. Q. Yuan, **S. Kirchner** and Q. Si
J. Phys.: Conf. Ser. **449**, 012028 (2013).

51. *Disorder and Quantum Interference in Heavy Fermion materials*
F. Parisen Toldin, J. Figgins, **S. Kirchner** and D. K. Morr
Phys. Rev. B **88**, 081101(R) (2013).

52. *Comment on 'Zeeman-Driven Lifshitz Transition: A Model for the Experimentally Observed Fermi-Surface Reconstruction in YbRh2Si2'*
S. Friedemann, S. Paschen, C. Geibel, S. Wirth, F. Steglich, **S. Kirchner**, E. Abrahams, Q. Si
Phys. Rev. Lett. **111**, 139701 (2013).

53. *Charge-doping driven Evolution of Magnetism in the Filled-Skutterutide* $CePt_4Ge_{12-x}Sb_x$
M. Nicklas, **S. Kirchner**, R. Borth, R. Gumeniuk, W. Schnelle, A. Leithe-Jasper, H. Rosner, F. Steglich, and Yu. Grin,
Phys. Rev. Lett. **109**, 236405 (2012).

54. *Thermal and Electrical Transport across a Quantum Critical Point*
H. Pfau, S. Hartmann, U. Stockert, P. Sun, S. Lausberg, M. Brando, S. Friedemann, C. Krellner, C. Geibel, S. Wirth, **S. Kirchner**, E. Abrahams, Q. Si, and F. Steglich,
Nature **484**, 493-497 (2012).

55. *Quantum criticality of the sub-Ohmic spin-boson model: Sub-leading behavior of local correlation functions*
Stefan Kirchner, Kevin Ingersent, and Qimiao Si
Phys. Rev. B **85**, 075113 (2012).

56. *Structural investigations on* $YbRh_2Si_2$*: from atomic to macroscopic length scale*
S. Wirth, S. Ernst, R. Cardoso-Gil, H. Borrmann, S. Seiro, C. Krellner, C. Geibel, **S. Kirchner**, U. Burkhardt, Y. Grin and F. Steglich
J. Phys.: Condens. Matter **24**, 294203 (2012).

57. *Nature of the antiferromagnetic quantum phase transition on the honeycomb lattice*
Jing-Rong Wang, Guo-Zhu Liu, and **Stefan Kirchner**
arXiv:1110.0093.

58. *Magnetism, f-electron localization and superconductivity in 122-type heavy-fermion metals*
F. Steglich, J. Arndt, O. Stockert, S. Friedemann, M. Brando, C. Klingner, C. Krellner, C. Geibel, S. Wirth, **S. Kirchner**, and Q. Si
topical review
J. Phys.: Condens. Matter **24**, 294201 (2012).

59. *Kondo destruction and valence fluctuations in an Anderson model*
J. H. Pixley, **Stefan Kirchner**, Kevin Ingersent, Qimiao Si
Phys. Rev. Lett. **109**, 086403 (2012).

60. *Superconductivity in Ce- and U-based "122" heavy-fermion compounds*
O. Stockert, **S. Kirchner**, Q. Si, and F. Steglich
invited topical review in
J. Phys. Soc. Jpn. **81**, 011001 (2012),
(special issue on "Recent Developments in Superconductivity").

61. *Emerging local Kondo screening and spatial coherence in the heavy-fermion metal $YbRh_2Si_2$*
S. Ernst, **S. Kirchner**, C. Krellner, C. Geibel, G. Zwicknagl, F. Steglich and S. Wirth
Nature **474**, 362-366 (2011).

62. *Critical Kondo destruction in a pseudogap Anderson model: scaling and relaxational dynamics*
M. T. Glossop, **S. Kirchner**, J. Pixley, and Q. Si,
Phys. Rev. Lett. **107**, 076404 (2011).

63. *Magnetically driven superconductivity in $CeCu_2Si_2$*
O. Stockert, J. Arndt, E. Faulhaber, C. Geibel, H. S. Jeevan, **S. Kirchner**, M. Loewenhaupt, K. Schmalzl, W. Schmidt, Q. Si, and F. Steglich,
Nature Physics **7**, 119 (2011).

64. *Break up of heavy fermions at an antiferromagnetic instability*
S. Friedemann, S. Wirth, **S. Kirchner**, Q. Si, S. Hartmann, C. Krellner, C. Geibel, T. Westerkamp, M. Brando, F. Steglich
J. Phys. Soc. Jpn. **80**, SA002 (2011).

65. *Continuous-Time Monte Carlo study of the pseudogap Bose-Fermi Kondo model*
J. Pixley, **S. Kirchner**, M. T. Glossop and Q. Si,
J. Phys.: Conf. Ser. **273** 012050 (2011).

66. *Discontinuous Hall coefficient at the quantum critical point in $YbRh_2Si_2$*
Sven Friedemann, Niels Oeschler, Steffen Wirth, Cornelius Krellner, Christoph Geibel, Frank Steglich, Silke Paschen, **Stefan Kirchner**, Qimiao Si
J. Phys.: Condens. Matter **23** 094216 (2011).

67. *Spin Path Integrals and the Quantum Phase Transition in the sub-Ohmic Spin-boson Model*
S. Kirchner,
Special issue on quantum phase transitions,
J. Low Temp. Phys. **161**, 282 (2010).

68. *Fermi-surface collapse and quantum-dynamical scaling near a quantum critical point.*
S. Friedemann, N. Oeschler, C. Krellner, C. Geibel, F. Steglich, S. Paschen, **S. Kirchner**, and Q. Si,
Proc. Natl. Acad. Sci. USA **107**, 14547 (2010).

69. *On the concept of effective temperature in current carrying quantum critical states*
S. Kirchner and Q. Si,
Phys. Status Solidi B, **247**, 631 (2010).

70. *Critical Kondo destruction and the violation of the quantum-to-classical mapping of quantum criticality*
S. Kirchner and Q. Si,
Physica B, **404**, 2904 (2009).

71. *Berry Phase and the Breakdown of the Quantum to Classical Mapping for the Quantum Critical Point of the Bose-Fermi Kondo model*
S. Kirchner and Q. Si,
submitted and arXiv:0808.2647 (2008).

72. *Quantum Criticality out of Equilibrium: Steady State in a Magnetic Single-Electron Transistor*
S. Kirchner and Q. Si,
Phys. Rev. Lett. **103**, 206401 (2009).

73. *Finite Size Scaling of Classical Long-Ranged Ising Chains and the Criticality of Dissipative Quantum Impurity Models*
S. Kirchner, Q. Si and Kevin Ingersent,
Phys. Rev. Lett. **102**, 166405 (2009).

74. *Magnetic Single-Electron Transistor as a Tunable Model System for Kondo-Destroying Quantum Criticality*
S. Kirchner and Q. Si,
Physica B, **403** pp. 1189-1193 (2008).

75. *Bose-Fermi Kondo model with Ising anisotropy: cluster-Monte Carlo approach*
S. Kirchner and Q. Si,
Physica B, **403** pp. 1199-1201 (2008).

76. *Scaling and Enhanced Symmetry at the Quantum Critical Point of the Sub-Ohmic Bose-Fermi Kondo Model*
S. Kirchner and Q. Si,
Phys. Rev. Lett. **100**, 026403 (2008).

77. *Zero-Temperature Magnetic Transition in an Easy-Axis Kondo Lattice Model*
J.-X. Zhu, **S. Kirchner**, R. Bulla and Q. Si,
Phys. Rev. Lett. **99**, 227204 (2007).

78. *Quantum Criticality in Ferromagnetic Single-Electron Transistors*
S. Kirchner, L. Zhu, Q. Si and D. Natelson
Proc. Natl. Acad. Sci. USA 102, 18824-18829 (2005).

79. *Fermi Liquid Properties of the Anderson Impurity Model within a Conserving Pseudoparticle Approach*
S. Kirchner, J. Kroha, and P. Wölfle
Physica B **359-361**, 756 (2005).

80. *Destruction of the Kondo effect in a multi-channel Bose-Fermi Kondo model*
S. Kirchner, L. Zhu, and Q. Si
Physica B **359-361**, 83 (2005).

81. *Quantum critical properties of the Bose-Fermi Kondo model in a large-N limit*
L. Zhu, **S. Kirchner**, Q. Si and A. Georges
Phys. Rev. Lett. **93**, 267201 (2004).

82. *Dynamical Properties of the Anderson Impurity Model within a Diagrammatic Pseudoparticle Approach*
S. Kirchner, J. Kroha, and P. Wölfle
Phys. Rev. B **70**, 165102 (2004).

83. *Structure and transport in muli-orbital Kondo systems*
J. Kroha, **S. Kirchner**, G. Sellier, P. Wölfle, D. Ehm, F. Reinert, S. Hüfner and C. Geibel
Physica E, **18**, 69 (2003).

84. *Self-consistent Conserving Theory for Quantum Impurity Systems: Renormalization Group Analysis*
S. Kirchner and J. Kroha
J. Low Temp. Phys. **126**, 1233 (2002).

85. *Anderson impurity model at finite Coulomb interaction U: Generalized noncrossing approximation*
K. Haule, **S. Kirchner**, J. Kroha, P. Wölfle
Phys. Rev. B **64**, 155111 (2001).

86. *Transport Properties of One-Dimensional Hubbard Models*
S. Kirchner, H. G. Evertz, W. Hanke
Phys. Rev. B **59**, 1825 (1999).

87. *Bose-Einstein condensation of a quon gas*
A. Inomata, **S. Kirchner**
Phys. Lett. A **231**, 311, (1997).

88. *The Maxwell-Boltzmann behavior of a quon gas*
A. Inomata, **S. Kirchner**
Phys. Lett. A **222**, 213, (1996).

Invited Contributions, Books and Book Chapters

- *Conductance Quasi-quantization of Quantum Point Contacts: Why Tight Binding Models are insufficient*
S. Kirchner, J. Kroha, E. Scheer and P. Wölfle
in The Anderson Transition and its Ramifications-Localisation, Quantum interference, and Interactions
T. Brandes and S. Kettemann (Eds.), Lecture Notes in Physics, (Springer 2004),
ISBN: 3-540-40785-5.

- *Selfconsistent Auxiliary Particle Theory for Strongly Correlated Fermion Systems*
S. Kirchner and J. Kroha and P. Wölfle
in High Performance Computing in Science and Engineering '02,
E. Krause and W. Jäger (Eds.), (Springer 2003), ISBN 3-540-43860-2.

- *Conserving T-Matrix Approach to Quantum Impurities with Application to Quantum Point Contacts*
S. Kirchner
Shaker, Aachen 2002, ISBN 3-8322-0183-1.

- *Deformed Quantum Mechanics*
A. Inomata, S. Dalton, **S. Kirchner**
in Proceedings of VII Int. Conf. on "Symmetry Methods in Physics", JINR, Dubna, 1996, pp.260-265

- *Diagrammatic theory of the Anderson impurity model with finite Coulomb interaction*
K. Haule, **S. Kirchner**, J. Kroha and P. Wölfle
in Proceedings of the NATO Advanced Research Workshop "Open problems in strongly correlated electron systems", Bled, Slowenia, April 26–30, 2000, J. Bonca, P. Prelovsek, A. Ramsak und S. Sarkar eds., NATO Science Series II, Vol. **15**, 413 (Kluwer Academic Publishers, Dordrecht, 2001)

- *Generalized conductance sum rule in atomic break junctions*
S. Kirchner, J. Kroha, E. Scheer
in Proceedings of the NATO Advanced Research Workshop
"Size dependent magnetic scattering", Pecs, Hungary, May 28 - June 1, 2000, V. Chandrasekhar, C. v. Haesendonck, and A. Zawadowski, eds., NATO Science Series II, vol. **50**, 215 (Kluwer Academic Publishers, 2001)

- *Diagrammatic theory of the Anderson impurity model with finite Coulomb interaction*
K. Haule, **S. Kirchner**, J. Kroha, P. Wölfle
in Proceedings of the NATO Advanced Research Workshop
"Size dependent magnetic scattering", Pecs, Hungary, May 28 - June 1, 2000, V. Chandrasekhar, C. v. Haesendonck, and A. Zawadowski, eds., NATO Science Series II, vol. **50**, 211 (Kluwer Academic Publishers, 2001)

- *Pair breaking in s-wave superconductors by two-channel Kondo impurities*
  G. Sellier, **S. Kirchner**, J. Kroha
  in Proceedings of the NATO Advanced Research Workshop
  "Size dependent magnetic scattering", Pecs, Hungary, May 28 - June 1, 2000 V. Chandrasekhar, C. v. Haesendonck, and A. Zawadowski, eds., NATO Science Series II, vol. **50**, 241 (Kluwer Academic Publishers, 2001)

- *Deformed Quantum Statistics of Quons*
  S. Kirchner and A. Inomata
  in Proceedings of the International Conference on
  "Spin-Statistics Connection and Commutation Relations:
  Experimental Tests and Theoretical Implications", Capri, Italy, May 31-June 4, 2000, R. Hilborn, and G. Tino, eds., pp155, (AIP, 2000), ISBN 1-563-96974-2.

Invited talks at international conferences, workshops, & schools

1. "Quantum and classical liquids in a model of annealed disorder"
   ANU workshop on 'Strongly Coupled Light-Matter Interactions: Models and Applications'
   Canberra, Australia (October 1-4, 2019).

2. "The quantum critical point in the sub-ohmic spin-boson model and its XY and SU(2) generalizations"
   "International Workshop on Strongly Coupled Light-Matter Interactions: Models and Applications"
   Hangzhou, China (April 27-28, 2019)

3. "Correlation, localization, and liquid phases in models of annealed disorder"
   ICAM-NCTS Frontiers of Condensed Matter Workshop
   Hsinchu, Taiwan (January 16-18, 2019).

4. "Quantum Materials Realizations of the two-channel Kondo effect'
   2018 Heavy Fermion Forum
   Ningbo, China (October 19-22, 2018).

5. "Quantum (& Classical) Criticality – a Tutorial"
   "The 3rd international conference in nanophotonics and nanophononics (ENPPC3)"
   Hurghada, Red Sea, Egypt (September 26-29, 2018).

6. "Optical response of Cerium-based clathrates"
   "The 3rd international conference in nanophotonics and nanophononics (ENPPC3)"
   Hurghada, Red Sea, Egypt (September 26-29, 2018).

7. "The rSPT approach to Kondo-correlated molecular junctions in and out of equilibrium"
   'Theoretical Methods in Molecular Spintronics (TMspin)'
   San Sebastian, Spain (September 17-21, 2018).

8. "Path Integration in Complex Dynamical Systems"
   CSH Workshop "Experimental vs. information-theoretic approach to complex systems"
   Complex Science Hub Vienna, Vienna (July 31-August 1, 2018).

9. "Quantum Criticality in Condensed Matter Systems"
   '2017 AMO Physics Summer School'
   Academica Sinica
   National Taiwan University (NTU), Taipeh (August 22-25, 2017).

10. "Steady State Dynamics & Effective Temperatures in a model of Quantum Criticality in Open Systems"
    '2017 Hangzhou Symposium for Young Researchers'
    Hangzhou, China (April 3-7, 2017).

11. "Quantum (& Classical) Criticality – a Tutorial"
    'Quantum Criticality and Novel Phases 2017 (QCNP17)'
    Berlin, Germany, (February 26 - March 1, 2017).

12. "Two-channel Kondo physics due to As vacancies in the layered compound $ZrAs_{1.58}Se_{0.39}$"
Miniworkshop 'Current Trends in Condensed Matter Physics',
Instituto Superior Técnico, Universidade de Lisboa
Lisbon, Portugal (February 21-22, 2017).

13. "Two-channel Kondo physics due to As vacancies in the layered compound $ZrAs_{1.58}Se_{0.39}$"
"The 1st international conference in nanophotonics and nanophononics",
Hurghada, Egypt (August 10-13, 2016).

14. "Steady-State Dynamics and Effective Temperature of Quantum Criticality in an Open System"
"The 1st international conference in nanophotonics and nanophononics",
Hurghada, Egypt (August 10-13, 2016).

15. "Two-channel Kondo physics due to As vacancies in the layered compound $ZrAs_{1.58}Se_{0.39}$"
'2nd Conference on Condensed Matter Physics'
Nanjing, China (July 20-22, 2016).

16. "On the dual fermion approach to charge order, spin frustration, and transport"
NCTS mini-workshop 'Frontier topics on topology, non-Fermi liquid and strong correlations in quantum many-body systems'
National Chiao-Tung University, Hsinchu, Taiwan (March 2-4, 2016).

17. "Steady-State Dynamics and Effective Temperature of Quantum Criticality in an Open System" Chinese Heavy Fermion Forum
Hangzhou, Zhejiang (November 4-6, 2015).

18. "On the dual fermion approach to charge order, spin frustration, and transport"
Mianyang collaborative meeting on heavy fermions
Jiangyou, Sichuan province (September 24, 2015).

19. "On the dual fermion approach to charge order, spin frustration, and transport"
20th International Conference on Magnetism (ICM)
Barcelona, Spain, (July 5-10, 2015).

20. "Visualization of Heavy Fermion Formation through Scanning Tunneling Microscopy"
KITP Program: Magnetism, Bad Metals and Superconductivity: Iron Pnictides and Beyond,
Santa Barbara, (November 06, 2014).

21. "Critical Exponents of Strongly Correlated Fermion Systems from Diagrammatic Multi-Scale Methods"
Asia Pacific Workshop on Strongly Correlated Electron Systems,
Beijing, (October 8-11, 2014).

22. "On the dual fermion approach to charge order and spin frustration"
Autumn Meeting of the Chinese Physical Society (CPS),
Harbin (September 11-14, 2014).

23. "Superconducting condensation energy of CeCu2Si2 and theoretical implications"
Workshop on Heavy Fermion Materials and Quantum Phase Transitions
Houston, TX (December 09-11, 2013).

24. "On the dual fermion approach to charge order, spin frustration"
Sino-German International Workshop on Kondo and Mott Physics in Correlated Matter
Hangzhou, China (October 14-17, 2013).

25. "Non-linear Transport Properties in Kondo-correlated Nano-structures"
International Workshop on "New Thermoelectric Materials"
Split, Croatia (September 28 – October 2, 2013).

26. "Non-Thermal Steady States in Local Problems"
Korrelationstage 2013 Dresden, (September 23-27, 2013).

27. "Superconducting condensation energy of CeCu2Si2 and theoretical implications",
DPG Frühjahrstagung 2013, Regensburg (March 10–15, 2013).

28. "Quantum Criticality in Pseudogap Kondo and Anderson models"
NCTS Workshop on Novel Quantum Phenomena in Mesoscopic Systems
National Center for Theoretical Sciences, Taiwan (December 14-15, 2012).

29. "Nonlinear Thermoelectric Transport through Quantum Dots"
NCTS Workshop on Novel Quantum Phenomena in Mesoscopic Systems
National Center for Theoretical Sciences, Taiwan (December 14-15, 2012).

30. "Introduction into Dynamical Mean Field Theory and its Extension with a focus on Quantum Impurity Solvers",
The XXX International Conference on Materials Science and Applications & Workshop on Functional Materials,
Marsa Alam, Egypt (November 25-28, 2012).

31. " Charge-doping driven Evolution of Magnetism in the Filled-Skutterutide $CePt_4Ge_{12-x}Sb_x$",
The XXX International Conference on Materials Science and Applications & Workshop on Functional Materials,
Marsa Alam, Egypt (November 25-28, 2012).

32. "Tracing the Kondo lattice in $YbRh_2Si_2$"
Sino-German Bilateral Workshop on Emergent Phases in Correlated and Topological Matter,
Hangzhou, China (April 01-06, 2012).

33. "Superconducting condensation energy of CeCu2Si2 and theoretical implications",
APS March Meeting 2012, Boston (February 27 – March 2, 2012).

34. "Quantum Critical Heavy Fermions to Strongly Interacting Quantum Dots",
Workshop on 'New theory and methods in quantum research',
UBC Vancouver, Canada (February 25 - 27, 2012).

35. "Non-linear Transport in nanoscale devices: Superperturbation theory approach to thermoelectric transport in strongly correlated quantum dots"
Workshop on mesoscopic and spin physics 2012,
National Center for Theoretical Sciences, Taiwan (December 09-10, 2011).

36. "Quantum Criticality in a ferromagnetic single-electron transistor: out-of-equilibrium correlations and the fate of the fluctuation-dissipation theorem"
Workshop on mesoscopic and spin physics 2012
National Center for Theoretical Sciences, Taiwan (December 09-10, 2011).

37. "Critical Kondo destruction away from equilibrium"
The XXVIV International Conference on Solid State and Materials Science of the Egyptian materials research society
Sharm-El-Sheikh, Egypt (October 3 - 6, 2011).

38. "Non-linear Transport in nanoscale devices: Superperturbation theory approach to thermoelectric transport in strongly correlated quantum dots"
The XXVIV International Conference on Solid State and Materials Science of the Egyptian materials research society
Sharm-El-Sheikh, Egypt (October 3 - 6, 2011).

39. "A superperturbation theory approach to thermoelectric transport in strongly correlated quantum dots"
NATO ADVANCED RESEARCH WORKSHOP
'New materials for thermoelectric applications: theory and experiment',
Hvar, Croatia (September 19 - 25, 2011).

40. "Magnetically driven superconductivity in $CeCu_2Si_2$"
New Frontiers of Low Temperature Physics - ULT2011,
Korea Advanced Institute of Science and Technology (KAIST),
Daejeon, South Korea (August 19-22, 2011).

41. "Tracing the Kondo lattice in $YbRh_2Si_2$"
The International Conference on Low Temperature Physics - LT26,
Beijing, China (August 10-17, 2011).

42. "Magnetically driven superconductivity in $CeCu_2Si_2$"
Workshop 'Superconductivity 100 Years Young',
International Institute of Physics,
Natal, Brazil (May 16-27, 2011).

43. "Magnetically driven superconductivity in $CeCu_2Si_2$"
Workshop 'Korrelationstage 2011',
Dresden, Germany (February 28 - March 04, 2011).

44. "Magnetically driven superconductivity in $CeCu_2Si_2$"
Physical Phenomena at Magnetic Fields VII,
Tallahassee, Florida, US (December 4 - 7, 2010).

45. "Magnetically driven superconductivity in heavy-fermion compounds"
International School on Quantum Materials
International Max Planck Research School (IMPRS),
Stuttgart, Germany (October 5-8, 2010).

46. "Quantum Criticality out of Equilibrium: Current Carrying Steady States"
Symposium über Quantenkorrelationen in kondensierter Materie: Heute und Morgen
Fakultät für Physik,
Universität Göttingen, Göttingen, Germany (October 04, 2010).

47. "Magnetically driven superconductivity in $CeCu_2Si_2$"
Dual Nature of f-Electrons - the third international workshop,
Dresden, Germany (May 25 - 28, 2010).

48. "Magnetically Driven Superconductivity in $CeCu_2Si_2$"
MPG-UBC workshop on quantum matter,
Vancouver, Canada (May 11 - 15, 2010).

49. "Kondo breakdown and Berry phase effect in local-moment systems"
APS March Meeting 2010,
Portland (March 15 – 19, 2010).

50. "Berry Phase Effects in Quantum Critical Breakdown Scenarios",
2009 Hangzhou Workshop on Quantum Matter, Hangzhou, China
(October 12 - 15, 2009).

51. "Critical Kondo destruction: Does the quantum-to-classical mapping of quantum criticality break down?"
Korrelationstage 2009
Max Planck Institute for the Physics of Complex Systems,
Dresden, Germany (March 2 - 6, 2009).

52. "Scaling and Enhanced Symmetry at the Quantum Critical Point of the Sub-Ohmic Bose-Fermi Kondo Model",
Daniel Grempel Memorial Conference,
CEA/Saclay,
Paris, France (June 14, 2007).

53. "Quantum Criticality in Ferromagnetic Single Electron Transistors",
The International Conference on Strongly Correlated Electron Systems (SCES'07),
Houston, USA (May 13 - 18, 2007).

Invited seminars & colloquia

1. "Transition metal rutile nanostructures - a quantum simulation platform of singular Fermi liquids"
   Seminar, Kavli Institute for Theoretical Sciences
   CAS, Beijing (January 08, 2020).

2. "Vacancies in transition metal compounds: a simple route to non-Fermi liquid behavior?"
   Colloquium, Institute of Physics,
   National Chiao Tung University,
   Hsinchu, Taiwan (October 24, 2019).

3. "Steady State Dynamics & Effective Temperatures in a model of Quantum Criticality in Open Systems",
   Theory seminar, Physics Department,
   State University of New York,
   Albany, New York State, US (February 21, 2018).

4. "Vacancies in layered metallic compounds: a simple route to non-Fermi liquid behavior?",
   Colloquium, Physics Department,
   State University of New York,
   Albany, New York State, US (February 16, 2018).

5. "Quantum Criticality and the Origin of ω/T-scaling in Critical Quantum Matter" Focused Lecture of the Transregio Augsburg-Garching, TRR80
   Technical University of Munich
   Garching, Germany (October 27, 2017).

6. "Steady State Dynamics & Effective Temperatures in a model of Quantum Criticality in Open Systems"
   Condensed Matter Colloquium
   Technical University of Munich
   Garching, Germany (October 26, 2017).

7. "Transport anomalies in $ZrAs_{1.58}Se_{0.39}$: Vacancies in the PbFCl structure as a route to two-channel Kondo physics'
   Seminar zur Theorie der kondensierten Materie
   Center for Electronic Correlations and Magnetism (EKM),
   University of Augsburg,
   Augsburg, Germany (October 24, 2017).

8. "Two-channel Kondo physics due to As vacancies in the layered compound $ZrAs_{1.58}Se_{0.39}$"
   Beijing Computational Science Research Center (CSRC)
   Beijing, China (July 4, 2017).

9. "Kondo Physics in Heavy Fermions & Functional Nanostructures"
   National Center for Materials Science
   Shenyang, China (June 12, 2017)

10. "Kondo Screening & Heavy Fermion Behavior – a tutorial"
    National Key Laboratory of Surface Physics
    Fudan University, Shanghai, China (April 28th, 2017).

11. "Steady State Dynamics & Effective Temperatures in a model of Quantum Criticality in Open Systems"
    Theory Seminar
    National Chiao-Tung University, Hsinchu, Taiwan (April 12, 2017).

12. "Two-channel Kondo physics due to As vacancies in the layered compound $ZrAs_{1.58}Se_{0.39}$"
    Theory Seminar at IOP
    IOP-CAS, Beijing, China (December 14, 2016).

13. "Effective temperatures near quantum criticality out of equilibrium"
    Seminar zur Theorie der kondensierten Materie
    Center for Electronic Correlations and Magnetism (EKM),

University of Augsburg,
Augsburg, Germany (November 3, 2015).

14. "Critical Kondo destruction in rare earth intermetallics and single-electron transistors"
Special Seminar, Key Laboratory for Semiconductor Nanostructures and Quantum Devices,
Peking University, Beijing (June 16, 2015).

15. "Quantum Critical Heavy Fermions & the breakdown of the quantum-to-classical correspondence"
Colloquium, Physics Department,
Clarkson University,
Potsdam, New York State, US (December 05, 2014).

16. "Quantum Critical Heavy Fermions & the breakdown of the quantum-to-classical correspondence"
Colloquium, Physics Department,
University of Albany
Albany, New York State, US (November 11, 2014).

17. "Nonlinear thermoelectric transport through Nanostructures"
Quantum Many Body Seminar
Fakultät für Physik und Astronomie,
Universität Würzburg,
Würzburg, Germany (April 4, 2013).

18. "Nonlinear Transport through strongly correlated Nanostructures"
Condensed Matter Seminar
St. Andrews University,
St. Andrews, Scotland, UK (February 13, 2013).

19. "On the dual fermion approach to charge order, spin frustration, and transport"
Department of Physics, State Univeristy of New York at Albany,
Albany, New York State, US (December 5, 2013).

20. "Superconducting condensation energy of CeCu2Si2 and theoretical implications",
Colloquium, Physics Department,
Pontificia Universidad Católica de Chile,
Santiago de Chile, Chile (November 02, 2012).

21. "Superconducting condensation energy of CeCu2Si2 and theoretical implications",
Joint Colloquium of Physics Department & Center for Correlated Matter,
Zhejiang University,
Hangzhou, China (October 09, 2012).

22. "Non-linear Transport in nanoscale devices: Superperturbation theory approach to thermoelectric transport in strongly correlated quantum dots"
Institute for Theoretical Nano-Electronics,
Forschungszentrum Jülich,
Jülich, Germany (February 14, 2012).

23. "Magnetically driven superconductivity in $CeCu_2Si_2$"
SFB Seminar, Friedrich-Schiller-Universität Jena,
Jena, Germany (November 29, 2011).

24. "Magnetically driven superconductivity in $CeCu_2Si_2$"
Colloquium, Universidad Técnica Federico Santa Maria,
Valparaiso, Chile (November 17, 2011).

25. "Tracing the Kondo lattice in $YbRh_2Si_2$",
Seminar on "Current Problems in Solid State Research"
Institut for Low Temperature and Structure Research, Polish Academy of Science
Wroclaw, Poland (October 25, 2011).

26. "Magnetisch getriebene Supraleitung in $CeCu_2Si_2$"
    Seminar zur Theorie der kondensierten Materie
    Center for Electronic Correlations and Magnetism (EKM),
    University of Augsburg,
    Augsburg, Germany (July 05, 2011).

27. "Quantum Criticality out of Equilibrium: Current Carrying Steady States and effective Temperatures"
    Institut für Theoretische Physik A,
    Rheinisch-Westfälische Technische Hochschule Aachen (RWTH),
    Aachen, Germany (May 3, 2011).

28. "Magnetically Driven Superconductivity",
    Colloquium, Physics Department,
    State University of New York,
    Albany, New York State, US (March 31, 2011).

29. "Critical Kondo destruction out of equilibrium",
    Seminar, Experimentelle Physik III,
    Universität Würzburg,
    Würzburg, Germany (January 14, 2011).

30. "Berry Phase Effects in Quantum Critical Breakdown Scenarios",
    Theorie seminar, Universität Leipzig,
    Leipzig, Germany (October 29, 2010).

31. "Quantum Criticality out of Equilibrium: Steady State in a Magnetic Single-Electron Transistor",
    Fakultät für Physik,
    Technische Universität Ilmenau,
    Ilmenau, Germany (August 25, 2010).

32. "Quantum Criticality out of Equilibrium: Current Carrying Steady States"
    Department of Physics,
    Royal Holloway, University of London,
    London, UK (June 1, 2010).

33. "Magnetically driven superconductivity in $CeCu_2Si_2$"
    Rutherford Appleton Laboratory,
    Didcot, UK (May 28, 2010).

34. "Continuous zero-temperature transitions and quantum-dynamical scaling"
    SFB Transregio 21 seminar,
    University of Stuttgart,
    Stuttgart, Germany (January 19, 2010).

35. "Berry Phase Effects in Quantum Critical Breakdown Scenarios",
    Condensed Matter seminar,
    Ludwig Maximilian University of Munich,
    München, Germany (November 20, 2009).

36. "Quantum Criticality out of Equilibrium: Steady State in a Magnetic Single-Electron Transistor",
    Colloquium,
    The College of Nanoscale Science and Engineering of the University at Albany,
    Albany, New York State, US (September 3, 2009).

37. "Quantum Criticality out of Equilibrium: Steady State in a Magnetic Single-Electron Transistor",
    Condensed Matter Seminar der Universität zu Köln,
    Köln, Germany (July 15, 2009).

38. "Quantum Criticality out of Equilibrium: Steady State in a Magnetic Single-Electron Transistor",
    Theorie Seminar,
    Physikalisches Institut,

Universität Bonn,
Bonn, Germany (July 13, 2009).

39. "Quantum Criticality out of Equilibrium: Steady State in a Magnetic Single-Electron Transistor",
Condensed Matter Seminar,
Institut für Theorie der Kondensierten Materie,
Universität Karlsruhe (now KIT),
Karlsruhe, Germany (April 20, 2009).

40. "Quantum Criticality out of Equilibrium:
Steady State in a Magnetic Single Electron Transistor",
Seminar, Institute of Solid State Physics,
Vienna University of Technology,
Vienna, Austria (July 04, 2008).

41. "Quantum Criticality and the Destruction of the Kondo Effect",
Condensed Matter Seminar,
Max Planck Institute for the Physics of Complex Systems,
Dresden, Germany (March 31, 2008).

42. "Quantum Critical Kondo Effect",
Keck Seminar, Rice University,
Houston, US (May 30, 2007).

43. "Scaling Functions and Conformal Invariance at the Quantum Critical Point of the Sub-Ohmic Bose-Fermi Kondo Model",
Theorie Seminar, Institut für theoretische Physik und Astrophysik,
Universität Würzburg,
Würzburg, Germany (April 13, 2007).

44. "Scaling and Enhanced Symmetry at the Quantum Critical Point of the Sub-Ohmic Bose-Fermi Kondo Model",
Theorie Kolloquium, Physikalisches Institut,
Universität Bonn,
Bonn, Germany (April 12, 2007).

45. "Quantum Criticality and the Destruction of the Kondo Effect in the Bose-Fermi Kondo Model",
Seminar, Institut für Theorie Kondensierter Materie,
Universität Karlsruhe (now KIT),
Karlsruhe, Germany (February 23, 2007).

46. "Quantum Criticality and the Destruction of the Kondo Effect in the Bose-Fermi Kondo Model",
Theory Seminar, Max Planck Institute for Solid State Research,
Stuttgart, Germany (February 22, 2007).

47. "Quantum Criticality and the Destruction of the Kondo Effect in the Bose-Fermi Kondo Model",
Seminar über aktuelle Probleme der Theorie korrelierter Elektronensysteme,
Institut für Physik,
Universität Augsburg,
Augsburg, Germany (February 21, 2007).

48. "Quantum Criticality and Zero-Temperature Phase Transitions in Nanostructures",
Seminar, Department of Physics & Astronomy,
University of Albany,
Albany, New York State, US (June 26, 2006).

49. "Quantum Criticality in a Ferromagnetic Single Electron Transistor",
Joint Theory Seminar of Orsay, Palaiseau and Saclay,
Paris, France (October 27, 2005)

50. “Realization of the Bose-Fermi Kondo Model in a Magnetic Quantum Dot”,
Seminar, Physikalisches Institut,
Universität Bonn,
Bonn, Germany (October, 15. 2004).

51. “Generalized Conductance Sum Rule in Atomic Break Junctions”,
Theory Seminar, Ritsumeikan University,
Kyoto, Japan (June 11. 2001).

52. “Generalized Conductance Sum Rule in Atomic Break Junctions”,
Condensed Matter Seminar,
Tohoku University,
Sendai, Japan (June 7, 2001).

53. “Fermi-Liquid Theory within a Slave Particle Description“,
Condensed Matter Seminar, University of Regensburg,
Regensburg, Germany (July 12, 2000).