

Dr. Richard Schmidt

Curriculum Vitae

PERSONAL DATA

Address Max-Planck Institute for Quantum Optics
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Webpage <https://www.quantummatter.de>

Citation metrics <https://scholar.google.com/citations?user=Bq95Vn8AAAAJ&hl=en>

SCIENTIFIC INTERESTS

Condensed matter theory
Van-der Waals materials and ultracold atomic systems
Non-equilibrium quantum dynamics
Functional renormalization group and field theoretical methods

SCIENTIFIC CAREER AND EDUCATION

Since 01/2018 **Max-Planck Institute for Quantum Optics**, Garching, Germany
Independent Max-Planck Research Group Leader

10/2017 – 12/2017 **ETH Zürich**, Zürich, Switzerland
Pauli Center Visiting Fellow

09/2016 – 09/2017 **Harvard University**, Cambridge, USA
Research Associate

09/2013 – 08/2016 **Harvard University**, Cambridge, USA
ITAMP Postdoctoral Fellow

06/2009 – 08/2013 **Technische Universität München**, München, Germany
PhD studies in theoretical physics - grade: 'with distinction' (highest grade)
Thesis title: *From few- to many-body physics with ultracold atoms*
Advisor: Prof. Wilhelm Zwerger

08/2005 – 06/2006 **University of New Mexico**, Albuquerque, USA
CDF collaboration, Fermilab

10/2002 – 01/2009 **Universität Heidelberg**, Heidelberg, Germany
Diploma in physics - grade: 1.0 (highest grade),
Thesis title: *Trion Formation in Ultracold Fermi Gases*
Advisor: Prof. Christof Wetterich

AWARDS AND GRANTS

08/2017 Independent Max-Planck Research Group Leader
Centrally advertised position awarded by the Max-Planck Society
Starting date: January 2018.

09/2013 – 08/2016 NSF Postdoctoral Fellowship of the Institute for Theoretical Atomic, Molecular and Optical Physics (ITAMP)

08/2005 – 06/2006 Fellowship of the Baden-Württemberg-Foundation

2001 Prize of the German Physical Society for outstanding results in physics in high school

TEACHING

ETH Zürich, Zürich, Switzerland:

- 2017 Two guest lectures within master level course 402-0484-00L: “Experimental and Theoretical Aspects of Quantum Gases”:
Few-body physics with ultracold atoms and quantum impurity problems.

Harvard University, Cambridge, USA:

- 2017 Two-part guest lecture within graduate course Physics 268R “Special Topics in Condensed Matter Physics. Quantum Many-Body Systems”:
Functional renormalization group approach to Efimov physics.
- 2016 Several classes held on semiconductor physics within the undergraduate course Physics 195: “Introduction to Solid State Physics”
- 2014 Three-part guest lecture within Physics 284 “Strongly Correlated Systems in Atomic and Condensed Matter Physics”:
Efimov physics in ultracold quantum gases.

Tsinghua University, Institute for Advanced Studies, Beijing, China:

- 2014 Invited lecture series:
Few-body physics from the functional renormalization group.

Technical University Munich, Munich, Germany:

- 2012 Teaching assistant (classical mechanics)
- 2011 Teaching assistant (theoretical solid state physics)
Teaching assistant (quantum mechanics)
- 2010 Teaching assistant (statistical mechanics)
- 2009 Lecture assistant (scattering theory)

PREPRINTS

29. **R. Schmidt**, F. Camargo, J. D. Whalen, R. Ding, G. Woehl Jr., S. Yoshida, J. Burgdorfer, F. B. Dunning, E. Demler, H. R. Sadeghpour, T. C. Killian, *Theory of excitation of Rydberg polarons in an atomic quantum gas*, arXiv:1709.01838, submitted to Phys. Rev. A (2017).
28. C. Langmack, **R. Schmidt**, W. Zwerger, *Efimov states near a Feshbach resonance and the limits of van der Waals universality at finite background scattering length*, arXiv:1709.00749, submitted to Phys. Rev. A (2017).
27. F. Camargo, **R. Schmidt**, J. D. Whalen, R. Ding, G. Woehl Jr., S. Yoshida, J. Burgdorfer, F. B. Dunning, H. R. Sadeghpour, E. Demler, T. C. Killian, *Creation of Rydberg Polarons in a Bose Gas*, arXiv:1706.03717, submitted to Phys. Rev. Lett. (2017).
26. Y. Ashida, **R. Schmidt**, L. Tarruell, and E. Demler, *Many-body interferometry of magnetic polaron dynamics*, arXiv:1701.01454, submitted to PNAS (2017).

PUBLICATIONS

25. **R. Schmidt**, M. Knap, D. A. Ivanov, J.-S. You, M. Cetina and E. Demler
Universal many-body response of heavy impurities coupled to a Fermi sea: a review of recent progress,
Rep. Prog. Phys. **81**, 024401 (2018).
24. A. Mazurenko, C. S. Chiu, G. J. Ji, M. F. Parsons, M. Kanasz-Nagy, **R. Schmidt**, F. Grusdt, E. Demler, D. Greif, and M. Greiner,
A cold-atom Fermi-Hubbard antiferromagnet,
Nature **545**, 462 (2017).
23. M. Lemeshko, and **R. Schmidt**,
Molecular impurities interacting with a many-particle environment: from ultracold gases to helium nanodroplets,
Book chapter in “Cold Chemistry: Molecular Scattering and Reactivity Near Absolute Zero”, edited by A. Osterwalder and O. Dulieu
Royal Society of Chemistry (2017).
22. F. Grusdt, **R. Schmidt**, Y. Shchadilova, and E. Demler,
Strong coupling Bose polarons in a BEC,
Phys. Rev. A **96**, 013607 (2017).
21. J. M. Pawłowski, M. M. Scherer, **R. Schmidt**, and S. J. Wetzel,
Functional Renormalization Group Flows and the Physics of Regulator Choice,
Ann. Phys. **384**, 165 (2017).
20. K. Agarwal, **R. Schmidt**, B. Halperin, V. Oganesyan, G. Zarand, M. D. Lukin, and E. Demler, *Magnetic noise spectroscopy as a probe of local electronic correlations in two-dimensional systems*,
Phys. Rev. B **95**, 155107 (2017).
19. **R. Schmidt**, and M. Knap,
Quasiteilchen in Zeitlupe,
Physik in unserer Zeit **48**, 6 (2017).
18. M. Cetina, M. Jag, R. S. Lous, I. Fritsche, J. T. M. Walraven, R. Grimm, J. Levinsen, M. M. Parish, **R. Schmidt**, M. Knap, E. Demler,
Ultrafast many-body interferometry of impurities coupled to a Fermi sea,
Science **354**, 96 (2016).
17. **R. Schmidt**, H. Sadeghpour, and E. Demler,
Mesoscopic Rydberg impurity in an atomic quantum gas,
Phys. Rev. Lett. **116**, 105302 (2016).
16. Y. Shchadilova, **R. Schmidt**, F. Grusdt, E. Demler,
Quantum dynamics of ultracold Bose polarons,
Phys. Rev. Lett. **117**, 113002 (2016).
15. S. Markson, S. T. Rittenhouse, **R. Schmidt**, J. P. Shaffer, H. R. Sadeghpour,
Theory of ultralong-range Rydberg molecule formation incorporating spin-dependent relativistic effects: Cs(6s)-Cs(np) as case study,
ChemPhysChem **17**, 3683 (2016).
14. B. Midya, M. Tomza, **R. Schmidt**, M. Lemeshko,
Rotation of cold molecular ions inside a Bose-Einstein condensate,
Phys. Rev. A **94**, 041601 (Rapid Communication) (2016).

13. **R. Schmidt**, and M. Lemeshko,
Deformation of a quantum many-particle system by a rotating impurity,
Phys. Rev. X **6**, 011012 (2016).
12. **R. Schmidt**, and M. Lemeshko,
Rotation of Quantum Impurities in the Presence of a Many-Body Environment,
Phys. Rev. Lett. **114**, 203001 (2015) [Editor's suggestion].
11. S. P. Rath, and **R. Schmidt**,
Field-theoretical study of the Bose polaron,
Phys. Rev. A **88**, 053632 (2013).
10. **R. Schmidt**, S. P. Rath, and W. Zwerger,
Efimov physics beyond universality,
Eur. Phys. J. B **85**, 386 (2012).
9. **R. Schmidt**, T. Enss, V. Pietilä, and E. Demler,
Fermi polarons in two dimensions,
Phys. Rev. A **85**, 021602 (Rapid Communication) (2012).
8. **R. Schmidt**, and T. Enss,
Excitation spectra and rf response near the polaron-to-molecule transition from the functional renormalization group,
Phys. Rev. A **83**, 063620 (2011).
7. S. Floerchinger, S. Moroz, and **R. Schmidt**,
Efimov Physics from the Functional Renormalization Group,
Few-body Syst. **51**, 153 (2011).
6. **R. Schmidt**, and S. Moroz,
Renormalization-group study of the four-body problem,
Phys. Rev. A **81**, 052709 (2010).
5. S. Moroz, and **R. Schmidt**,
Nonrelativistic inverse square potential, scale anomaly, and complex extension,
Ann. Phys. **325**, 491 (2010).
4. **R. Schmidt**, and S. Moroz,
Functional renormalization-group approach to the four-body problem,
EPJ Web of Conf. **3**, 19th International IUPAP Conference on Few-Body Problems in Physics (2010).
3. S. Floerchinger, **R. Schmidt**, and C. Wetterich,
Three-body loss in lithium from functional renormalization,
Phys. Rev. A **79**, 053633 (2009).
2. S. Moroz, S. Floerchinger, **R. Schmidt**, and C. Wetterich,
Efimov effect from functional renormalization,
Phys. Rev. A **79**, 042705 (2009).
1. S. Floerchinger, **R. Schmidt**, S. Moroz, and C. Wetterich,
Functional renormalization for trion formation in ultracold fermion gases,
Phys. Rev. A **79**, 013603 (2009).

INVITED TALKS AND SEMINARS

64. *Many-body physics with quantum impurities in cold atoms and beyond*, Theoretisch Physikalisches Kolloquium, TU Kaiserslautern, Germany (November 29, 2017).
63. *Many-body physics with quantum impurities in cold atomic system*, GiRyd Workshop, Dresden, Germany (November 28, 2017).
62. *Many-body physics with quantum impurities in cold atoms and beyond*, Seminar, TU Munich, Garching, Germany (November 22, 2017).
61. *Effect of localized defects on Fermi polarons in transition metal dichalcogenides*, Institute for Quantum Electronics Seminar, ETH Zürich, Switzerland (November 16, 2017).
60. *Many-body physics with quantum impurities in cold atoms and beyond*, Seminar of the National Center for Quantum Science and Technology, ETH Zürich, Switzerland (November 14, 2017).
59. *Many-body physics with quantum impurities in cold atoms and beyond*, Colloquium of the Center for Quantum Optics and Quantum Matter, Aarhus University, Aarhus, Denmark (November 11, 2017).
58. *Many-body physics with ultracold atoms*, ICPEAC, Cairns, Australia, (July 26, 2017).
57. *Rydberg molecules and polarons*, 48th Annual Meeting of the APS Division of Atomic, Molecular and Optical Physics (DAMOP), Sacramento, USA (June 8, 2017).
56. *Impurity-Hybridized polarons in transition metal dichalcogenides*, TMD Meeting, Harvard University, Cambridge, USA (May 19, 2017).
55. *Polaron physics with ultracold atoms and Rydberg excitations*, AMO Seminar, Rice University, Houston, USA (April 6, 2017).
54. *Angulons: Rotation of Quantum Impurities in Presence of a Many-Body Environment*, Seminar, Harvard University, Cambridge, USA (March 28, 2017).
53. *Exploring novel states of matter in complex quantum systems*, Seminar, University of Cambridge, UK (February 13, 2017).
52. *Exploring novel states of matter with quantum hybrid systems*, MPG Symposium 2017, Berlin, Germany (January 31, 2017).
51. *Many-body interferometry of magnetic polaron dynamics*, CUA Retreat 2017, Plymouth, NH, USA (January 17, 2017).
50. *Many-body physics with ultracold atoms – from quantum impurities to antiferromagnetism*, Seminar, ICOQI, Innsbruck, Austria (October 18, 2016).
49. *Full counting statistics of staggered magnetization in the Heisenberg antiferromagnet*, Seminar, Harvard University, Cambridge, USA (September 21, 2016).
48. *Control and probe of matter with quantum impurities*, Center For Ultrafast Imaging, DESY, Hamburg, Germany (July 4, 2016).
47. *Control and probe of matter with quantum impurities*, ITAMP Seminar, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA (May 12, 2016).
46. *A Mesoscopic Rydberg Impurity in an atomic quantum gas - from fast dynamics to many-body absorption spectra*, Mathematical Physics Seminar, IST Austria, Klosterneuburg, Austria (April 13, 2016).

45. *A Mesoscopic Rydberg Impurity in an atomic quantum gas - from fast dynamics to many-body absorption spectra*,
Seminar, TU Vienna, Vienna, Austria (April 5, 2016).
44. *Response functions of an impurity in BEC*,
Seminar, Harvard University, Cambridge, USA (March 25, 2016).
43. *A mesoscopic impurity in an atomic quantum gas*,
ITAMP / HQOC Seminar, Harvard University, Cambridge, USA (March 3, 2016).
42. *A mesoscopic impurity in an atomic quantum gas*,
Center For Ultrafast Imaging, DESY, Hamburg, Germany (December 2, 2015).
41. *A mesoscopic impurity in an atomic quantum gas*,
JILA Seminar, JILA, University of Colorado/NIST, Boulder, USA (November 16, 2015).
40. *Dynamic finite temperature response of impurities in a Fermi sea - from mesoscopic physics to ultracold atoms*,
ITAMP Seminar, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA (October 2, 2015).
39. *Dynamic finite temperature response of impurities in a Fermi sea - from mesoscopic physics to ultracold atoms*,
CUA Seminar, MIT, Cambridge, USA (September 30, 2015).
38. *Dynamic finite temperature response of impurities in a Bose gas*,
Seminar, Harvard University, Cambridge, USA (August 24, 2015).
37. *Dynamic finite temperature response of impurities in a Fermi sea*,
Seminar, Harvard University, Cambridge, USA (July 7, 2015).
36. *Decoherence of impurities in ultracold quantum gases*,
Oberseminar Mathematische Physik, University Heidelberg, Germany (June 29, 2015).
35. *Decoherence of impurities in ultracold quantum gases*,
SFB/TRR 21 - Seminar, University Stuttgart, Germany (June 5, 2015).
34. *Decoherence and absorption spectra of impurities in cold quantum gases*,
IQOQI Seminar, IQOQI, Innsbruck Austria (April 16, 2015).
33. *Decoherence and absorption spectra of impurities in cold quantum gases*,
Mathematical Physics Seminar, Institute of Science and Technology, Klosterneuburg, Austria (February 04, 2015).
32. *Quantum Impurities - A Challenge for Quantum Simulation with Ultracold Atoms*,
Physics Seminar, Institute of Advanced Studies, Tsinghua University, Beijing, China (October 29, 2014).
31. *Field-theoretical Study of the Bose Polaron - Challenges for Quantum Simulation with ultracold Atoms*,
Sonderkolloquium des SFB/TR 49, Kaiserslautern, Germany (September 4, 2014).
30. *The Bose polaron - Challenge for quantum simulation with ultracold atoms*,
AIAS international conference: Cold atoms and beyond 2014, Aarhus, Denmark (June 25, 2014).
29. *The Bose polaron*,
Harvard Condensed Matter Kids Seminar, Harvard University, Cambridge, USA (April 22, 2014).
28. *Efimov physics beyond universality*,
AMO Physics Seminar, University of Connecticut, Storrs, USA (February 24, 2014).
27. *The Bose polaron - Challenges for quantum simulation with ultracold atoms*,
Complex Systems Seminar, Universität Heidelberg, Germany (January 8, 2014).

26. *The Bose polaron - Challenges for quantum simulation with ultracold atoms*, Seminar, Universität Hamburg, Germany (January 7, 2014).
25. *Ultracold multicomponent Fermi gases: From spin instabilities to induced superfluidity*, Condensed Matter Theory Seminar, Technische Universität München, Germany (December 19, 2013).
24. *Ultracold multicomponent Fermi gases: From spin instabilities to induced superfluidity*, Seminar, Harvard University, Cambridge, USA (December 13, 2013).
23. *The Bose polaron - Challenges for quantum simulation with ultracold atoms*, ITAMP Seminar, ITAMP, Cambridge, USA (October 10, 2013).
22. *From few- to many-body physics with ultracold atoms*, Technische Universität München, Germany (June 24, 2013).
21. *Functional RG for cold atoms – From many-body polaron to few-body Efimov physics*, IQOQI, Innsbruck, Austria (February 18, 2013).
20. *Functional RG for cold atoms – From many-body polaron to few-body Efimov physics*, University of Massachusetts, Amherst, USA (February 4, 2013).
19. *Functional RG for cold atoms – From many-body polaron to few-body Efimov physics*, Harvard University, Cambridge, USA (January 31, 2013).
18. *Efimov physics beyond universality*, LENS, Firenze, Italy (November 5, 2012).
17. *Functional RG for cold atoms: From many-body polaron to few-body Efimov physics*, 6th Conference on Exact Renormalization Group, Aussois, France (September 7, 2012).
16. *Fermi polarons in two dimensions and news from Efimov physics beyond universality*, International Workshop on Quark Gluon Plasma meets Cold Atoms - Episode III, Hirschegg, Austria (August 29, 2012).
15. *Efimov physics beyond universality*, Retreat of the Innsbruck group of Rudi Grimm, Maria Waldrast, Austria (February 29, 2012).
14. *Renormalization group flow of spectral functions for ultracold quantum gases*, Yukawa International Molecule Workshop on Renormalization Group Approach from Ultra Cold Atoms to the Hot QGP, Kyoto, Japan (August 31, 2011).
13. *Renormalization group flow of spectral functions for ultracold quantum gases*, Seminar of Research Training Group, University of Jena, Germany (June 28, 2011).
12. *Renormalization group flow of spectral functions: Excitation spectra and rf response near the polaron-to-molecule transition*, Retreat of Grimm group, Maria Waldrast, Austria (July 27, 2011).
11. *Renormalization group flow of spectral functions for ultracold quantum gases*, Universität Heidelberg, Germany (July 5, 2011).
10. *Spectral functions from the fRG: Excitation spectra and rf response near the polaron-to-molecule transition*, Condensed Matter Theory Seminar, TU München, Germany (May 26, 2011).
9. *The Fermi polaron: Functional RG with full frequency and momentum dependence*, ColdQuantumCoffee-Seminar, Universität Heidelberg, Germany (November 2, 2010).
8. *The Fermi polaron: Functional RG with full frequency and momentum dependence*, Condensed Matter Theory Seminar, Frankfurt, Germany (October 29, 2010).
7. *Few-body Physics with Multicomponent Quantum Gases*, DFG Research Unit 801 Meeting, Munich, Germany (October 06, 2009).

6. *Trion Formation in Ultracold Fermi Gases*, Technische Universität München, Germany (March 31, 2009).
5. *Trion Formation in Ultracold Fermi Gases*, IQOQI Innsbruck, Austria (June 19, 2009).
4. *Trion Formation in Ultracold Fermi Gases*, ColdQuantumCoffee-Seminar, Universität Heidelberg, Germany (February 3, 2009).
3. *Trion Formation in Ultracold Fermi Gases*, ColdQuantumCoffee-Seminar, Universität Heidelberg, Germany (May 27, 2008).
2. *Three species Fermion Gases*, EMMI-Seminar, Universität Heidelberg, Germany (July 07, 2008).
1. *Representations of spin 1/2 particles, Dirac Equation and the role of mass*, NUPAC Seminar, University of New Mexico, Albuquerque, USA (May 2, 2006).

CONTRIBUTED TALKS AND POSTERS

27. *Exciton-Polarons in transition metal dichalcogenides*, Moore Foundation Review Meeting, Harvard University, Cambridge, USA [Poster] (May 7, 2017).
26. *Many-body physics of quantum impurities*, NSF Site Visit, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA (April 10, 2017).
25. *Quantum dynamics of ultracold Bose polarons*, ARO AFOSR MURI Program Review, Chicago, USA [Poster] (September 26, 2016).
24. *Ultrafast many-body interferometry of impurities coupled to a Fermi sea*, Harvard 4rd Annual Research Scholar Retreat, North Andover, USA [Poster] (September 22, 2016).
23. *A Mesoscopic Rydberg Impurity in an atomic quantum gas*, 47th Annual Meeting of the APS Division of Atomic, Molecular and Optical Physics, Providence, Rhode Island, USA (May 25, 2016).
22. *Decoherence and absorption spectra of quantum impurities*, Harvard 3rd Annual Research Scholar Retreat, St. Dedham, USA [Poster] (September 17, 2015).
21. *Decoherence and absorption spectra of quantum impurities*, Cold Atoms meet Quantum Field Theory, Bad Honnef, Germany [Poster] (July 6, 2015).
20. *Decoherence of impurities in ultracold atoms*, POLATOM Conference 2015, Bad Honnef, Germany (June 22, 2015).
19. *Decoherence and absorption spectra of impurities in ultracold quantum gases*, 46th Annual Meeting of the APS Division of Atomic, Molecular and Optical Physics, Columbia, USA (June 10, 2015).
18. *Rotation of quantum impurities in the presence of a many-body environment*, 46th Annual Meeting of the APS Division of Atomic, Molecular and Optical Physics, Columbia, USA (June 9, 2015).
17. *Heavy impurities in quantum gases*, ARO-MURI Review Workshop, Rice University, Houston, USA (January 9, 2015).
16. *Efimov physics beyond universality with ultracold atoms*, INT Program 14-1: Workshop - Universality in Few-Body Systems, Seattle, USA (March 25, 2014).

15. *The Bose polaron - Challenge for quantum simulation with ultracold atoms*,
March Meeting of the German Physical Society, Berlin, Germany (March 19, 2014).
14. *The Bose polaron - Challenge for quantum simulation with ultracold atoms*,
March Meeting of the American Physical Society, Denver, USA (March 05, 2014).
13. *Field theoretical study of the Bose polaron: Challenges for quantum simulation with ultracold atoms*
DARPA OLE Review Meeting, Washington D.C., USA [Poster] (February 11, 2014).
12. *Polaron Dynamics in two and three dimensions*
Annual Workshop FOR 801, Frankfurt, Germany [Poster] (November 13, 2012)
11. *The polaron-to-molecule transition: Dynamics and rf response from functional renormalization group*
International Workshop FOR 801, Hamburg, Germany [Poster] (June 22, 2011).
10. *Renormalization group flow of spectral functions: Excitation spectra and rf response near the polaron-to-molecule transition*,
German Science Foundation (DFG) research unit FOR 801 - International Workshop, Hamburg, Germany (June 23, 2011).
9. *The polaron-to-molecule transition: Dynamics and rf response from functional renormalization group*
Workshop on Frontiers in Ultracold Fermi Gases, Trieste, Italy [Poster] (June 6, 2011).
8. *The Fermi polaron in cold atoms: funRG with full frequency and momentum dependence*,
5th International Conference on the Exact Renormalization Group, Corfu, Greece (September 18, 2010).
7. *Functional renormalization group approach to the four-body problem*
Les Houches summer school on Many-body physics with ultracold gases, Les Houches, France [Poster] (June 2010).
6. *Quantum magnetism, unconventional superfluids and non-equilibrium phenomena*,
DFG Research Unit 801 Meeting, Munich, Germany [Poster] (February 24, 2010).
5. *Functional renormalization group approach to the four-body problem*
Workshop on Quantum Simulators, Bad Honnef, Germany [Poster] (Oct. 12, 2009).
4. *Functional renormalization group approach to the four-body problem*,
19th International IUPAP Conference on Few-Body Problems in Physics, Bonn, Germany (August 31, 2009).
3. *Few-body Physics with Ultracold Fermi Gases*,
International Workshop on Quark-Gluon Plasma meets Cold Atoms - Episode II, Riezern, Austria (August 7, 2009).
2. *Efimov Trimer Formation and "Color" Superfluidity in Ultracold Fermi Gases*,
EMMI Workshop: Quark-Gluon Plasma meets Cold Atoms, GSI, Darmstadt, Germany [Poster] (September 25, 2008).
1. *Functional Renormalization for Trion Formation in Ultracold Fermion gases*,
4th Int. Conf. on the Exact RG, Heidelberg, Germany [Poster] (July 1, 2008).

SERVICE

Organization Co-Organisator of the "ITAMP-IST Workshop on Quantum Impurities in Atomic, Condensed-Matter and Chemical Systems" jointly funded by the IST Austria and ITAMP, Cambridge, USA; held in Klosterneuburg, Austria, August 16-18, 2017.

Harvard Physics Department Panel Discussion “Jobs in Academia: application, interviews, and negotiations”.

organization of event; invitation of speakers; moderator (2016).

4rd Annual Harvard Physics Department Research Scholar Retreat,

Invitation and selection of speakers; planning of event; moderation of event (2016).

3rd Annual Harvard Physics Department Research Scholar Retreat,

Invitation and selection of speakers; planning of event; moderation of event (2015).

ITAMP Topical Discussions, Harvard-Smithsonian Center for Astrophysics

Invitation and selection of speakers; moderation and hosting of discussions (2014-15).

Committees 2014-2017: Member of the Harvard Physics Research Scholar Committee

Outreach Highschool Outreach Program: John Hopkins Center for Talented Youth Family Academic Programs Science and Technology Series, coorganization (September 2016).

Referee Physical Review Letters

Physical Review A

Physical Review X

New Journal of Physics

European Physical Journal B

Journal of Physics A: Mathematical and Theoretical

Entropy Journal

Physics Letters A