

Richard Küng

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Personal

Date of birth 25.04.1988.
Nationality Austria.

Education

- Since Oct. **Doctoral candidate**, *University of Freiburg*, Germany.
2012 Supervisor: J.-Prof. Dr. David Gross
Topic: *Ill-conditioned estimation problems in quantum mechanics and applied math*
- 2011–2012 **Master in Physics**, *ETH Zürich*, Switzerland, top of my class.
Master Thesis: *Calculating and bounding POVM norm constants*
Supervisor: Prof. Dr. Matthias Christandl (Institute for Theoretical Physics, ETH Zürich, CH)
- 2007–2011 **Bachelor in Interdisciplinary Sciences**, *ETH Zürich*, Switzerland.
Bachelor Thesis: *An RPMD approach to the tunneling splitting*
Supervisor: Prof. Stuart Althorpe (Department of Chemistry, University of Cambridge, UK)
- 2010 **International Student Exchange Project**, *University of Cambridge*, United Kingdom.

Work Experience

- Since 2009 **Teaching Assinstant**, *ETH Zürich and University of Freiburg*.
Subjects taught at ETH Zürich: physical chemistry, quantum chemistry, partial differential equations (excellent evaluations)
Subjects taught at University of Freiburg: classical mechanics I + II, electrostatics (excellent evaluation), electrodynamics
- 2010,2011 **Tutor**, *VCS (Chemistry Students Society at ETH Zürich)*, Switzerland.
Repetition and exam preparation courses in mathematics (excellent evaluation)
- 2006 – 2009 **Organisation Member for International Conferences**, *DEXA Society*, Austria.
DEXA 2006 in Krakow (Poland), DEXA 2007 in Regensburg (Germany), DEXA 2008 in Torino (Italy), DEXA 2009 in Linz (Austria)
- 2006 – 2007 **National Service**, *Betriebsseminar Linz*, Austria.

Awards and Distinctions

- 2013 **Willi-Studer-Prize**, *ETH Zürich*, Switzerland, May 2013.
Awarded to the top student in the individual departments of ETH Zürich
- 2012 **Master of Physics with Distinction**, *ETH Zürich*, Switzerland.
top of my class, grade: 6.0 (Swiss grading scale: 6.0, 5.9, . . . , 1.0)
- 2006 **Austrian Matura with Distinction**, *BG/BRG Freistadt*, Austria.
top of my class, grade: 1.0 (Austrian grading scale: 1.0, 1.1, . . . , 5.0)

- 2004 – 2006 **Student Representative**, *BG/BRG Freistadt*, Austria.
- Class Representative: elected representative of the pupils in my class (2004 – 2006)
 - Head Boy: elected representative of all 500 pupils of my school (2005 – 2006)

Languages

German Mother Tongue.

English Academic IELTS level: 8.5 (2011) + half year stay in Cambridge, UK (2010).

Latin Latin Proficiency Certificate.

Spanish Language Level B1.

French Language Level A2.

Ancient Greek Course I/III at University of Zürich, 4 ECTS, grade: 5.5 (Swiss grading scale: 6.0,5.9,...,1.0).

Publications, Presentations and Research Visits

Publications

- R. Kueng, H. Rauhut, U. Terstiege, *low rank matrix recovery from rank one measurements*, arXiv:1410.6913 (2014)
- D. Gross, F. Kraemer, R. Kueng, *Improved Recovery Guarantees for Phase Retrieval from Coded Diffraction Patterns*, arXiv:1402.6286 (2014)
- D. Gross, F. Kraemer, R. Kueng, *A Partial Derandomization of PhaseLift using Spherical Designs*, accepted at the Journal for Fourier Analysis and Applications (2014)
- R. Kueng, D. Gross, *RIPlless compressed sensing from anisotropic measurements*, Linear Algebra and its Applications, 441, 110–123 (2014)

Conference Presentations

Sept. 2014 Workshop: New horizons in statistical decision theory, *Oberwolfach*, Germany (**Talk**).

June 2014 CEQIP Workshop, *Znojmo*, Czech Republic (**Talk**).

April 2014 Workshop: Mathematical Physics meets Sparse Recovery, *Oberwolfach*, Germany (**Talk**).

March 2014 DPG-Spring Meeting, *Humboldt University, Berlin*, Germany (**Talk**).

March 2014 85th Annual GAMM Meeting, *University of Erlangen*, Germany (**Talk**).

Feb. 2014 17th QIP, *Barcelona*, Spain (**Poster**).

Dec. 2013 Compressed Sensing and its Applications, *TU Berlin*, Germany (**Poster**).

Nov. 2013 Statistical Issues in Compressive Sensing, *University of Göttingen*, Germany (**Poster**).

March 2013 DPG-Spring Meeting, *University of Hannover*, Germany (**Talk**).

Feb. 2013 Fields Workshop on Mathematical Methods of Quantum Tomography, *Fields Institute, Toronto*, Canada (**Poster**).

Jan. 2013 16th QIP, *Tsinghua University, Beijing*, China (**Poster**).

Research Visits

Nov. 2014 **Group of Prof. Jens Eisert**, *Berlin*, Germany.

July 2014 **Group of Prof. Holger Rauhut**, *Aachen*, Germany.

June 2014 **Group of Prof. Michael Wolf**, *Munich*, Germany.

Feb. 2014 **Group of Prof. Renato Renner**, *Zürich*, Switzerland.

Oct. 2013 **Group of Prof. Felix Kraemer**, *Göttingen*, Germany.

Jan. 2013 **Group of Prof. Frank Verstraete**, *Vienna*, Austria.

July 2011 **Group of Prof. Jens Eisert**, *Berlin*, Germany.