Curriculum Vitae

Ing. Dipl.-Ing. Martin Nuss, BSc

Ringstraße 7
4061 Pasching, Austria
+43 (0) 699 11704115
martin.nuss@gmx.at
http://itp.tugraz.at/~06nuss/

Personal Information

full name:	Martin Nuss
date and place of birth:	01.11.1985, Linz
religion:	roman catholic
marital status:	single, male
nationality:	Austrian
mother:	Maria Nuss, housewife
father:	Albert Nuss, commercial clerk (Borealis - Agrolinz Melamine International)
sister:	Franziska Nuss, high school teacher

Abstract

I am currently enrolled as a doctoral student in theoretical physics at Graz University of Technology. After obtaining a master's degree (Dipl.-Ing.) in technical solid state physics there, I joined the group of quantum many-body physics out of equilibrium at the Institute of Theoretical and Computational Physics. Our current work focuses on the development of computational schemes to answer questions in strongly correlated condensed matter physics in and out of equilibrium. This includes research in complex solid or functional materials like high temperature superconductors. Furthermore we study nano-scale as well as molecular devices like quantum dots or wires and transport through conjugated molecules. While studying I worked as a teaching assistant for theoretical physics and enjoyed teaching exercise classes.
My background before university is information technology: I attended HTBLA Leonding a "secondary technical and vocational college for IT and business administration" which I concluded with Matura (A-Levels) and an Ingenieur title in 2005. I could put the acquired skills in the fields of software engineering, information technology and business administration to good use in my work experience in software engineering (Fabasoft AG), SAP engineering/customizing (Applied International Informatics AG), teaching (Graz University of Technology, Schülerhilfe), maintenance work (Borealis - AMI) and scientific research (Göttingen University, Linz University).
I have experience in many fields of physics and mathematics, hardware/software engineering, project management and business administration. My current major expertise lies in the field of computer simulations, optimization, data analysis, solid state physics as well as teaching.
In my private time I enjoy sports, listening to music, reading and outdoor activities. My major hobby is karate, which I practise and teach since 2002.

EDUCATION AND TRAINING

04/2015 – 10/2006

Graz University of Technology
Technical Physics

Graz University of Technology
Rechbauerstraße 12
8010 Graz

- 01/2012 – 05/2015: *Doctorate* in Theoretical Physics
  expected finishing date, about to conclude with doctoral thesis in *theoretical / computational condensed matter* physics: *Numerical treatment of strongly correlated quantum many-body problems out of equilibrium*
- 07/2009 – 01/2012: *Diplom Ingenieur / Master of Science*
  in Technical Physics, graduated 20.01.2012, with distinction, concluded with master's thesis in the field of *theoretical solid state* physics: *A cluster many-body approach to quantum impurity models*
- 06/2007 – 07/2009: *Bachelor* of Science
  in Technical Physics, graduated 01.09.2009, concluded with bachelor's thesis in the field of *atomic physics*: *Improvement of Energy Levels in Praseodymium-I by a Line Combination Approach*
- 10/2006 – 09/2007: First year (Erster Studienabschnitt)
  in Technical Physics, graduated 19.09.2007

06/2005 – 09/2000

Höhere Technische Bundeslehranstalt für EDV und Organisation Leonding
(Secondary technical and vocational college for IT and business administration Leonding)

HTL LEONDING
Limesstraße 12-14
4060 Leonding

school focus on software engineering, information technology and business administration, five years cashier, graduated 23.06.2005, Matura (A-Levels) and an *Ingenieur* title with distinction, concluded with master's thesis in the field of *logistics software engineering*: *SAP EDILOG/2*

06/2000 – 09/1996

Bundesrealgymnasium Landwiedstraße

Landwiedstraße 82
4020 Linz

school special focus on natural sciences, laboratory classes

06/1996 – 09/1992

Elementary school Langholzfeld
Volksschule Langholzfeld

Adalbert-Stifter-Str. 27
4061 Pasching

sports - class

1992 – 1989

Kindergarten Langholzfeld

Caritas
Kirchengasse 2
4061 Pasching

Occupational education

2010 Density Functional Theory at Linz University
2009 accelerator and high energy physics at DESY Hamburg
2006 Microsoft Windows programming at Fabasoft AG
2001/02/03/04 SAP-basis at Applied International Informatics AG

WORK EXPERIENCE

ongoing – 01.02.2012

Graz University of Technology
Institute of Theoretical and Computational Physics
Rechbauerstraße 12
8010 Graz

FWF researcher, doctoral student in the field of solid state theory, teaching assistant in the field of theoretical physics

10.09.2011 – 20.08.2011

Georg August University Göttingen
Institute of Theoretical Physics
Friedrich-Hund-Platz 1
37077 Göttingen

research stay with Prof. Dr. Kurt Schönhammer at the theoretical condensed matter many-body physics department

30.06.2011 – 01.10.2010

Graz University of Technology
Institute of Theoretical and Computational Physics
Petersgasse 16
8010 Graz

teaching assistant in the field of theoretical physics: Programming, Advanced Numerics, Electrodynamics

12.09.2010 – 12.07.2010

Johannes Kepler University Linz
Institute for Theoretical Physics
Altenberger Straße 69
4040 Linz

research stay with Prof. Dr. Eckhard Krotscheck in the solid state many-body theory group, FWF researcher

30.06.2010 – 01.10.2009

Graz University of Technology
Institute of Theoretical and Computational Physics
Petersgasse 16
8010 Graz

teaching assistant in the field of theoretical physics: Programming, Computer Simulations, Electromagnetic Fields, Quantum Mechanics

30.02.2010 – 01.10.2009

Graz University of Technology
Institute of Experimental Physics
Petersgasse 16
8010 Graz

teaching assistant in the field of experimental physics: Advanced Laboratory Exercises, Laser Laboratory

30.02.2010 – 01.10.2009

Graz University of Technology
Institute of Material Physics
Petersgasse 16
8010 Graz

teaching assistant in the field of materials physics: Thermodynamics, Statistical Physics

10.09.2009 – 20.07.2009 **Deutsches Elektronen Synchrotron**

Notkestraße 85
22607 Hamburg

summer student in the field of electron accelerator physics (MPY), in particular free electron lasers

30.06.2009 – 01.10.2008 **Graz University of Technology**
Institute of Theoretical and Computational Physics

Petersgasse 16
8010 Graz

teaching assistant in the field of theoretical physics: Programming, Quantum Mechanics, Numerics

07.09.2008 – 18.08.2008 **Schülerhilfe**

Dauphinstraße 58
4030 Linz

teacher in Mathematics, Physics and English

03.08.2008 – 07.07.2008 **Borealis - AMI**

St.-Peter-Straße 25
4021 Linz

maintenance Single Train NH_3 Ammonia production

30.06.2008 – 01.02.2008 **Graz University of Technology**
Institute of Theoretical and Computational Physics

Petersgasse 16
8010 Graz

teaching assistant in the field of theoretical physics: Programming

12.09.2007 – 20.08.2007 **Schülerhilfe**

Dauphinstraße 58
4030 Linz

teacher in Mathematics, Physics and English

30.09.2006 – 08.05.2006 **Fabasoft AG**

Honauerstraße 4
A-4020 Linz

software engineer for .net Microsoft Windows Vista & Office 2k7 integration

04.05.2006 – 04.09.2005 **Austrian Armed Forces**
Österreichisches Bundesheer

compulsory military service, Schreiber at 3. FlABt / FlAR 3 Fliegerhorst Vogler Hörsching, 24.11.2005 – 05.01.2006 Assistenzeinsatz Burgenland

31.08.2004 – 01.07.2004 **Applied International Informatics AG**

ai informatics
Straßerau 6
4020 Linz

SAP R/3 software engineer, HR, MM, focus on logistic processes

05.08.2003 – 07.07.2003 **Applied International Informatics AG**

ai informatics
Straßerau 6
4020 Linz

SAP R/3 software engineer, FI

07.08.2002 – 08.07.2002 **Applied International Informatics AG**

ai informatics
Straßerau 6
4020 Linz

SAP R/3 software engineer, SAP-basis, authorisation concepts

31.08.2001 – 02.07.2001 **Applied International Informatics AG**

ai informatics
Straßerau 6
4020 Linz

SAP R/3 software engineer, SAP-basis, authorisation concepts

PROFESSIONAL QUALIFICATIONS

Languages

mother tongue: German

proficient use of English:

UNDERSTANDING		SPEAKING	WRITING
Listening	Reading	Spoken interaction, Spoken production	
C	C	C	C

- Austrian Matura (A-Levels)
- Cambridge Business English Certificate Vantage Grade A
- Business English training classes at HTBLA Leonding
- Training course in "Scientific writing in English" at TU Graz

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communi-cation skills

Very good communication skills in national and international environment gained through various

- research stays abroad,
- participation in international projects,
- active attendance of international schools and training programs, as well as
- presentation of work at major conferences and workshops.

Driving license

Holder of Austrian / European licenses

- B,
- B1, as well as
- forklifts, sailing boats and surfboards.

Organisat-orial / managerial skills

Completed advanced training courses in

- rhetoric and presentation skills (TU Graz),
- efficient time management (TU Graz),
- project development (HTBLA Leonding), as well as
- business administration (HTBLA Leonding).

Acquired team leadership skills through

- working in software engineering teams,
- project managing software engineering projects, see Awards section,
- giving classes as a teaching assistant at Graz University of Technology,
- working in a research team with junior researchers at Graz University of Technology,
- giving karate classes for children and adults, as well as
- teaching groups of pupils, students and grown-ups in private institutes.

Computer skills

I acquired very good software and hardware computer skills

- by self-study as a hobby,
- through training at HTBLA Leonding, including classes in software development, programming, operating systems and databases,
- at Graz University of Technology both while studying technical physics and while giving classes in computer simulations, programming, basic numerics and advanced numerics.

Experienced in programming

- Matlab, C / C++ / C#, Fortran, Mathematica, Pascal, Assembler, Java, ABAP, Oracle Forms, as well as various scripting languages.

Operating systems

- Microsoft Windows, Linux / Unix as well as Mac OS.

Frequent use of standard office software

- Microsoft Word, Excel and PowerPoint and alike, LaTex, Origin as well as LabView.

Databases

- Oracle, MySQL and Microsoft Access.

Personal Qualifications

- recurring first aid training
- fire prevention officer (Brandschutzwart) at Graz University of Technology
- lifeguard swimmer (Helfer)
- classical trumpet, 8 years

Hobbys

Sports

I am passionate about karate (Shotokan and Goju Ryu) in which I train since 2002. Since 2010 I teach children's classes as well as adults as a I. Dan and I am a sports Karate judge. I enjoy practising a variety of activities like

- cross fit,
- running,
- cycling,
- swimming and
- table tennis.

Science & Technology

I am very much interested in Physics and Mathematics for which I also founded and moderated the weekly journal club, a voluntary discussion series at Graz University of Technology (2011 to 2015). Furthermore I am very interested in

- Geography,
- computers and digital media, as well as
- photography.

Other

I enjoy spending time with my family and I like going to the cinema or to concerts. I enjoy listening to a broad range of music as well as playing the trumpet and guitar myself.

Thesis, Publications, Conferences & Presentations

Thesis

2015

Numerical treatment of strongly correlated quantum many-body problems out of equilibrium
doctoral thesis (Graz University of Technology)
working title – to appear in mid-2015

2012

A cluster many-body approach to quantum impurity models
master's thesis (Graz University of Technology)
https://itp.tugraz.at/~06nuss/content/NussMartin_MastersThesis.pdf

2009

Improvement of Energy Levels in Praseodymium-I by a Line Combination Approach
bachelor's thesis (Graz University of Technology)
https://itp.tugraz.at/~06nuss/content/NussMartin_BachelorsThesis.pdf

2004/2005

SAP-EDILOG/2
master's thesis (HTBLA Leonding)

Publications

A list of 13 reviewed publications is available in annex 1: *List of publications*. Selected publications:

- ***Ab-initio effective model for electronic properties of the quasi one-dimensional purple bronze $Li_{0.9}Mo_6O_{17}$***
  Martin Nuss and Markus Aichhorn
  Phys. Rev. B 89, 045125 (2014), arXiv:1306.1074
- ***Steady-state and quench dependent relaxation of a quantum dot coupled to one-dimensional lead***
  [editors suggestion], **Martin Nuss**, Martin Ganahl, Hans Gerd Evertz, Enrico Arrigoni, and Wolfgang von der Linden
  Phys. Rev. B 88, 045132 (2013), arXiv:1301.3068
- **Variational cluster approach to the single-impurity Anderson model**
  Martin Nuss, Enrico Arrigoni, Markus Aichhorn and Wolfgang von der Linden
  Phys. Rev. B 85, 235107 (2012), arXiv:1110.4533

Conferences

In recent years I actively participated in 23 international conferences, workshops and schools. Details are available in annex 2: *List of conferences, workshops and schools*.

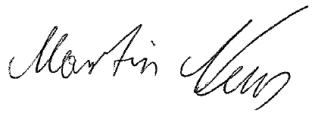
Presentations

I gave 39 talks, seminars or presentations in front of international audiences. Details are available in annex 3: *List of presentations*. Selected presentations:

- **Nonequilibrium evolution of the Kondo screening cloud**
  conference talk given on 02.04.2014 at DPG spring meeting on 30 March - 4 April 2014 in Dresden, Germany
- **Effective electronic model of a quasi-one dimensional compound: $Li_{0.9}Mo_6O_{17}$**
  poster presented on 27.02.2014 at conference: From Electrons to Phase Transitions on 26-28 February at University of Vienna, Austria
- **Effects of electron-electron interactions on a molecular ring junction out of equilibrium**
  Conference talk given on 06.09.2013 at ÖPG annual meeting, from 03-06 September 2013 at JKU Linz, Austria

AWARDS

2011	**Advancement scholarship** (Förderstipendium) of Graz University of Technology
2011	**"Exploring the Kondo physics of the single impurity Anderson model by means of the variational cluster approach"** Awarded the price for the best poster at XVI TC on SCS [Vietri sul Mare (Salerno, Italy)] October 3 - 14, 2011 by the European Physical society
2009	**Scholarship for academic excellence** (Leistungsstipendium) of Graz University of Technology
2008	**Scholarship for academic excellence** (Leistungsstipendium) of Graz University of Technology
2004/2005	***"EWOS" (easy wireless order system)*** project manager, 3rd place at „Project Award" 2005
2004/2005	***Upper Austrian foreign language contest*** (English) 3rd place
2003/2004	***"e-content-PRE"*** project manager, 1st place at „learnie Awards" 2004 of Austrian BMBWK



Ing. Dipl.-Ing. Martin Nuss, BSc

3 Annexes:

1. List of publications
2. List of conferences, workshops and schools
3. List of presentations

List of publications

This list of publications is also available on the web

https://itp.tugraz.at/~06nuss/publications.html

including links to publicly available prints of the publications.

2015

Numerical treatment of strongly correlated quantum many-body problems out of equilibrium
doctoral thesis (Graz University of Technology)
working title – to appear in mid-2015

2014

Nonequilibrium, spatio-temporal formation of the Kondo screening-cloud on a lattice
Martin Nuss, Martin Ganahl, Enrico Arrigoni, Wolfgang von der Linden and Hans Gerd Evertz
arXiv:1409.0646 (2014)

Auxiliary master equation approach to non-equilibrium correlated impurities
Antonius Dorda, **Martin Nuss**, Wolfgang von der Linden and Enrico Arrigoni
Phys. Rev. B 89, 165105 (2014), arXiv:1312.4586

2013

Effects of electronic correlations and magnetic field on a molecular ring out of equilibrium
Martin Nuss, Wolfgang von der Linden and Enrico Arrigoni
Phys. Rev. B 89, 155139 (2014), arXiv:1307.7530

Ab-initio effective model for electronic properties of the quasi one-dimensional purple bronze $Li_{0.9}Mo_6O_{17}$
Martin Nuss and Markus Aichhorn
Phys. Rev. B 89, 045125 (2014), arXiv:1306.1074

Steady-state and quench dependent relaxation of a quantum dot coupled to one-dimensional lead [editors suggestion]
Martin Nuss, Martin Ganahl, Hans Gerd Evertz, Enrico Arrigoni, and Wolfgang von der Linden
Phys. Rev. B 88, 045132 (2013), arXiv:1301.3068

2012

Steady-state spectra, current and stability diagram of a quantum dot: a non-equilibrium Variational Cluster Approach
Martin Nuss, Christoph Heil, Martin Ganahl, Michael Knap, Hans Gerd Evertz, Enrico Arrigoni, Wolfgang von der Linden
Phys. Rev. B 86, 245119 (2012), arXiv:1207.5641

A cluster many-body approach to quantum impurity models
master's thesis (Graz University of Technology)
https://itp.tugraz.at/~06nuss/content/NussMartin_MastersThesis.pdf

Non-linear transport through a strongly correlated quantum dot
Martin Nuss, Enrico Arrigoni, Wolfgang von der Linden
AIP Conf. Proc. 1485, pp. 302-306, ISBN: 978-0-7354-1097-8 (2012)

2011

Variational cluster approach to the single-impurity Anderson model
Martin Nuss, Enrico Arrigoni, Markus Aichhorn and Wolfgang von der Linden
Phys. Rev. B 85, 235107 (2012), arXiv:1110.4533

2009

Optimal compensation of the Earth's magnetic field while tuning the energy at FLASH
Martin Nuss and Pedro Castro, DESY summer school DESY internal report
https://itp.tugraz.at/~06nuss/content/REPORT_NUSS_Optimal_compensation_of_the_Earths_magnetic_field_while_changing_the_energy_at_FLASH.pdf

Improvement of Energy Levels in Praseodymium-I by a Line Combination Approach
bachelor's thesis (Graz University of Technology)
https://itp.tugraz.at/~06nuss/content/NussMartin_BachelorsThesis.pdf

2004/2005

SAP-EDILOG/2
master's thesis (HTBLA Leonding)

List of conferences, workshops and schools

This list of conferences, workshops and schools I actively participated in, is also available on the web

https://itp.tugraz.at/~06nuss/

including downloadable material.

2014

Autumn School on Correlated Electrons: DMFT at 25: Infinite Dimensions
15 -19 September 2014 in Jülich, Germany

Deutsche Physikalische Gesellschaft Frühjahrestagung 2014
30 March- 4 April 2014 in Dresden, Germany

From electrons to phase transitions
26-28 February 2014 at University of Vienna in Vienna, Austria

2013

Materials Day Graz
24 October 2013 at Graz University of technology in Graz, Austria

Advanced Algorithms for Correlated Quantum Matter
30 September - 4 October 2013 at Universität Würzburg in Würzburg, Germany

Autumn School on Correlated Electrons - Emergent Phenomena
22-27 September 2013 at Forschungszentrum Jülich in Jülich, Germany

Österreichische Physikalische Gesellschaft Tagung 2013
3-6 September 2013 at JKU Linz in Linz Austria

Quantum Many Body Systems out of Equilibrium
12-30 August 2013 at MPI in Dresden, Germany

The new generation in strongly correlated electron systems (NGSCES)
01-05 July 2013 in Sestri Levante, Italy

Annual Meeting of the Vienna Computational Materials Laboratory (VICoM)
03-05 April 2013 at University of Vienna in Vienna, Austria

Deutsche Physikalische Gesellschaft Frühjahrestagung: condensed matter
10-15 March 2013 in Regensburg, Germany

2012

VICoM Summer School: Bandstructure Meets Many Body Theory
18-22 September 2012 in Vienna, Austria

XXXVI International Conference of Theoretical Physics: Correlations & Coherence at different scales
13-18 September 2012 in Ustron, Poland

Autumn School on Correlated Electrons: From Models to Materials
03-07 September 2012 at Forschungszentrum Jülich in Jülich Germany

Innovations in Strongly Correlated Electronic Systems: School and Workshop
06-17 August 2012 at International Centre for Theoretical Physics (ICTP) in Triest, Italy

Materials Day Graz
21 July at Graz Univeristy of Technology in Graz, Austria

Introductory Course on Ultracold Quantum Gases
09-12 July 2012 at Institut fuer Quantenoptik und Quanteninformation (IQOQI) in Innsbruck, Austria

The new generation in strongly correlated electron systems (NGSCES)
25-29 June 2012 in Portoroz, Slowenia

Annual Meeting of the Vienna Computational Materials Laboratory (VICoM)
13-14 April 2012 at University of Vienna in Vienna, Austria

2011

XVI Training Course in the Physics of Strongly Correlated Systems
03-14 October 2011 in Vietri sul Mare (Salerno), Italy

2010

25th International Conference of Physics Students
17 - 23 August 2010 in Graz, Austria

2009

Summer student program of Deutsches Elektronen Synchrotron
20 Juli – 10 September 2009 at DESY in Hamburg, Germany

2008 **International Conference of Physics Students**
6 - 13 August 2008 in Krakow, Poland

List of presentations

This list of presentations is also available on the web

https://itp.tugraz.at/~06nuss/presentations.html

including downloadable slides.

2014

Formation of the Kondo screening cloud
poster presented on 23.109.2014 at Materials Day Graz in Graz, Austria

Formation of the Kondo screening cloud
poster presented on 17.09.2014 at Autumn School on Correlated Electrons: DMFT at 25: Infinite Dimensions on 15 September - 19 September 2014 in Jülich, Germany

Efficient cluster-based solvers for DMFT optimal bath representation vs. self-energy
poster presented in cooperation with Manuel Zingl on 16.09.2014 at Autumn School on Correlated Electrons: DMFT at 25: Infinite Dimensions on 15 September - 19 September 2014 in Jülich, Germany

Effects of electronic correlations and magnetic field on a molecular ring out of equilibrium
poster presented on 02.04.2014 at DPG Frühjahrestagung Sektion Kondensierte Materie on 30 March - 4 April 2014 in Dresden, Germany

Nonequilibrium evolution of the Kondo screening cloud
talk given on 02.04.2014 at DPG Frühjahrestagung Sektion Kondensierte Materie on 30 March - 4 April 2014 in Dresden, Germany

Effective electronic model of a quasi-one dimensional compound: $Li_{0.9}Mo_6O_{17}$
poster presented on 27.02.2014 at conference: From Electrons to Phase Transitions on 26-28 February at University of Vienna, Austria

2013

Band-dependent Quasiparticle Dynamics in Single Crystals of the $Ba_{0.6}K_{0.4}Fe_2As_2$ Superconductor Revealed by Pump-Probe Spectroscopy by Darius H. Torchinsky, G. F. Chen, J. L. Luo, N. L. Wang, and Nuh Gedik
60 min talk given on 08.11.2013 at the journal club see PRL 105, 027005 (2010), arXiv:0905.0678v2

Effective electronic model of a quasi-one dimensional compound: $Li_{0.9}Mo_6O_{17}$
poster presented on 24.10.2013 at Materials Day on 24 October at Graz University of Technology, Austria

Correlated quantum systems out of equilibrium: Methods, Applications, Challenges
15 min seminar talk presented on 24.10.2013 at Materials Day on 24 October at Graz University of Technology, Austria

Steady-state characteristics of correlated quantum many-body systems out of equilibrium
30 min seminar talk presented on 24.10.2013 at Oberseminar Graz at Graz University of Technology, Austria

Effects of electronic correlations and magnetic field on a molecular ring out of equilibrium
poster presented on 01.10.2013 at Advanced Algorithms for Correlated Quantum Matter from 30 September - 4 October 2013 at Universität Würzburg in Würzburg, Germany

Effects of electronic correlations and magnetic field on a molecular ring out of equilibrium
poster presented on 25.09.2013 at Autumn School on Correlated Electrons - Emergent Phenomena from 22-27 September 2013 in Forschungszentrum Jülich in Jülich, Germany

Effects of electron-electron interactions on a molecular ring junction out of equilibrium
12 min conference talk given on 06.09.2013 at ÖPG Jahrestagung, from 03-06 September 2013 at JKU Linz, Austria

Effects of electronic correlations and magnetic field on a molecular ring out of equilibrium
poster presented on 13.08.2013 at Quantum Many Body Systems out of Equilibrium from 12-30 August 2013 in Dresden, Germany

A non-equilibrium Dnamical Mean Field Theory approach based on the Lindblad equation
poster presented in cooperation with Antonius Dorda on 01.06.2013 at The New Generation in Strongly Correlated Electronic Systems from 01-05 July 2013 in Sestri Levante, Italy

Effective electronic model of a quais-one dimensional compound: $Li_{0.9}Mo_6O_{17}$
poster presented on 01.06.2013 at The New Generation in Strongly Correlated Electronic Systems from 01-05 July 2013 in Sestri Levante, Italy

A variational cluster approach to strongly correlated quantum systems out of equilibrium
12 min conference talk given on 15.03.2013 at DPG Frühjahrestagung: condensed matter

A variational cluster approach to strongly correlated quantum systems out of equilibrium
60 min talk given on 08.03.2013 at the journal club

2012

Quantum Hall Effects, Chapter III Integer Quantum Hall Effect (pg 43-65) by M. O. Goerbig
60 min talk given on 26.11.2012 at the journal club see arXiv:0909.1998

Strongly correlated systems out of equilibrium: a Variational Cluster Approach
45 min seminar talk given on 11.12.2012 at Institute of Theoretical Physics, Institut Jozef Stefan at the theory seminar (45min), guest of Prof. Janez Bonca

Quantum dots out of equilibrium steady-state and quench dynamics
poster presented on 02.10.2012 at NAWI Graz day in Graz Austria. Thanks to Martin Ganahl.

Quantum dots out of equilibrium
15 min conference talk given on 14.09.2012 at XXXVI International Conference of Theoretical Physics: Correlations & Coherence at different scales from 13-18 September 2012 in Ustron, Poland

Quantum dots out of equilibrium steady-state and quench dynamics
poster presented on 05.09.2012 at Autumn School on Correlated Electrons: From Models to Materials from 03-07 September 2012 at Forschungszentrum Jülich in Jülich Germany

Quantum dots out of equilibrium steady-state and quench dynamics
poster presented on 08.08.2012 at Innovations in Strongly Correlated Electronic Systems from 06-17 August 2012 at International Centre for Theoretical Physics (ICTP) in Triest, Italy

Quantum dots out of equilibrium steady-state and quench dynamics
poster presented on 12.07.2012 at Introductory Course on Ultracold Quantum Gases from 09-12 July 2012 at Institut fuer Quantenoptik und Quanteninformation (IQOQI) in Innsbruck, Austria

Quantum dots out of equilibrium steady-state and quench dynamics
poster presented on 27.06.2012 at The new generation in strongly correlated electron systems (NGSCES) from 25-29 June 2012 in Portoroz, Slowenia

Quantum dots out of equilibrium steady-state and quench dynamics
poster presented on 21.06.2012 at Materials Day of the Technical Univerity of Graz at Technical University of Graz in Graz, Austria

Magnetic vacancies in Graphene: Disordered impurity physics within the variational cluster approach
45 min seminar talk given on 21.05.2012 at Center for computational materials science (CMS), University of Vienna at the theory seminar, guest of Prof. Josef Redinger and Dr. Florian Mittendorfer

Strongly correlated quantum dot out of equilibrium A variational cluster approach
25 min conference talk given on 13.04.2012 at Vienna Computational Materials Laboratory (VICoM) at the annual meeting

Phonon-mediated superconductivity in graphene by lithium deposition by Gianni Profeta, Matteo Calandra and Francesco Mauri
60 min talk given on 16.03.2012 at the journal club see Nature Physics 8, 131-134 (2012)

Strongly correlated quantum systems out of equilibrium: A variational cluster approach
45 min seminar talk given on 06.02.2012 at Scuola Internazionale Superiore di Studi Avanzati (SISSA) - Condensed Matter Department at the theory seminar, guest of Prof. Michele Fabrizio

Quantum Impurity Models in and out of equilibrium studied by means of Variational Cluster Perturbation Theory
20 min seminar talk given on 20.01.2012 at Institute of Theoretical Physics, TU Graz at the theory seminar

2011

Quantum Impurity Models in and out of equilibrium studied by means of Variational Cluster Perturbation Theory
60 min seminar talk given on 18.11.2011 at Institute of Theoretical Physics, TU Graz at the theory seminar

Experimental control of the transition from Markovian to non-Markovian dynamics of open quantum systems by Bi-Heng Liu, Li Li, Yun-Feng Huang, Chuan-Feng Li, Guang-Can Guo, Elsi-Mari Laine, Heinz-Peter Breuer and Jyrki Piilo
60 min talk given on 28.102011 at the journal club see Nature Physics September (2011) doi:10.1038/nphys2085

Quantum Impurity Models in and out of equilibrium studied by means of Variational Cluster Perturbation Theory
25 min conference talk given on 03.10.2011 at XVI Training Course in the Physics of Strongly Correlated Systems from 03-14 October 2011 in Vietri sul Mare (Salerno), Italy

Exploring the Kondo physics of the single impurity Anderson model by means of the variational cluster approach
poster presented on 04.10.2011 at XVI Training Course in the Physics of Strongly Correlated Systems from 03-14 October 2011 in Vietri sul Mare (Salerno), Italy

Quantum Impurity Models in and out of equilibrium studied by means of Variational Cluster Perturbation Theory
60 min seminar talk given on 22.09.2011 at Institute of Theoretical Physics, Georg-August-Universität Göttingen at the theory seminar, guest of Prof. Kurt Schönhammer

Solving exact cover problems
20 min lecture talk given on 06.03.2011 at Institute of Theoretical Physics, TU Graz at the lecture for advanced programming

2009

Optimal compensation of the Earth's magnetic field while changing the energy at FLASH
15 min seminar talk given on 09.09.2009 at Deutschen Elektronen Synchrotron in Hamburg, Germany