# Andreas Windisch

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## Nationality

Austria

## Education

**University of Graz**, Austria

***Doctor of Philosophy***, Physics (2011-2014), awaiting defense in Aug. 2014

- Thesis: "Density Dependence Of Matter–Gluon Vertex Functions In Landau Gauge QCD"
- Supervisor: Prof. Reinhard Alkofer

***Magister rerum naturalium***, Physics (2011), with distinction
(Austrian equivalent to Master of Science, Physics)

- Thesis: "On The Infrared Behavior And Analytic Structure of Greens Functions"
- Supervisor: Prof. Reinhard Alkofer

## Reviewer/Referee

- Physical Review D
- Journal of Zhejiang University SCIENCE A, Springer

## Invitations to Conferences

1. Excited QCD 2014, Bjelasnica Mountain, Bosnia and Herzegovina
2. Excited QCD 2013, Bjelasnica Mountain, Bosnia and Herzegovina

## Research Stay

- September 9 2013 – February 24 2014
  *Washington University in St. Louis*, Prof. Mark Alford

## Visits/Seminar Talks

1. University of Technology Darmstadt, Germany
   March 12 2013
   **Talk:** *Calculating the analytic structure of QFT Green's Functions on GPUs*
2. University of Giessen, Germany
   March 13 2013
   **Talk:** *Calculating the analytic structure of QFT Green's Functions on GPUs*

## Contributions to Schools and Conferences *(all talks are available on my website)*

1. Austria-Croatia-Hungary Triangle Workshop 2013
   Leitring, Austria, June 27 – June 28 2013
   **Talk:** *On the Analytic Structure of QFT Green's Functions*

2. I3HP Workshop
   Graz, Austria, May 21 – May 23 2013
   **Talk:** *On crystalline color super conductors and deformed Fermi surfaces – an outlook*

3. Excited QCD 2013
   Bjelasnica Mountain, Bosnia and Herzegovina, February 3 – February 9 2013
   **Invited Talk:** *Calculating the analytic structure of QFT Green's Functions (on GPUs)*

4. $51^{st}$ Winter School on Theoretical Physics
   Schladming, Austria, February 23 – March 2 2013
   Extreme QCD In And Out Of Equilibrium
   **Poster**

5. Workshop on Strongly Interactig Field Theories
   Jena, Germany, November 29 – December 1 2012
   **Poster**

6. $X^{th}$ Quark Confinement and the Hadron Spectrum
   Garching, Germany, October 8 – October 12 2012
   **Talk:** *On the Analytic Structure of Scalar Glueball Operators*

7. Monitoring Workshop of the Doctoral Schools Graz and Jena
   Graz, Austria, October 3 – October 5 2012
   **Talk:** *On the Analytic Structure of Scalar Glueball Operators*

8. $62^{nd}$ Annual Meeting of the Austrian Physical Society
   Graz, Austria, September 18 – September 21 2012
   **Talk:** *What is (not) a Glueball?*

9. Lightcone 2012
   Cracow, Poland, July 8 – July 13 2012
   **Talk:** *The Quark–Gluon Vertex in Landau gauge QCD*

10. $5^{th}$ Spring Workshop in Theoretical Particle Physics
    Szombathely, Hungary, April 11 – April 13 2012
    Non-Perturbative Methods in Quantum Field Theory
    **Talk:** *The $F^2$ correlator in Yang-Mills Theory*

11. $50^{th}$ Winter School on Theoretical Physics
    Schladming, Austria, February 25 – March 3 2012
    Prospects of Particle Physics
    **Poster**

12. Strong Interaction Days Jena 2011
    Jena, Germany, September 28 – September 30 2011
    **Talk:** *Glueball-Care through Field-Strength-Square*

13. Austria-Croatia-Hungary-Triangle Workshop
    Fürstenfeld, Austria, May 4 – May 6 2011
    Strong Interactions in Quantum Field Theory
    **Talk:** *The analytic structure of the $F^2$ correlator*

14. $49^{th}$ Winter School on Theoretical Physics
    Schladming, Austria, February 26 – March 5 2011
    Physics at all scales: The Renormalization Group

15. $5^{th}$ Austrian-Croatian-Hungarian Meeting
    Summer Workshop for Theoretical Physics
    Rab, Croatia, August 30 – September 4 2010
    Quantum Fields and Quark Matter
    **Talk:** *IR Behavior of Yang-Mills Theory in Maximally Abelian Gauge*

## Teaching Assistant/Tutor

**University of Graz**, Austria

1. **Summer Term 2013**
   (a) *Exercises on Electrodynamics*, 2 hrs/week
   (b) *Tutorial on Electrodynamics and Optics*, 1hr/week
2. **Winter Term 2012**
   (a) *Exercises on Linear Algebra*, 2 hrs/week
   (b) *Exercises on Classical Mechanics and Thermodynamics*, 2 hrs/week
3. **Summer Term 2012**
   (a) *Exercises on Vector Calculus*, 2 hrs/week
4. **Winter Term 2011**
   (a) *Exercises on Calculus*, 2 hrs/week
   (b) *Exercises on Classical Mechanics and Thermodynamics*, 2 hrs/week
5. **Winter Term 2010**
   (a) *Tutorial on Classical Mechanics*, 2 hrs/week
6. **Summer Term 2010**
   (a) *Tutorial on Quantum Mechanics*, 4 hrs/week
7. **Winter Term 2009**
   (a) *Tutorial on Classical Mechanics*, 2 hrs/week

## Language Skills

1. *German:* native
2. *English:* fluent

## Programming Skills

- `LINUX , UNIX (IRIX)`
- NVIDIA CUDA C, PGI CUDA Fortran (GPU computing)
- MPI
- `FORTRAN90`
- `C`/`C++`/`C#`/Borland `C`-Builder
- Sun Grid Engine
- `Mathematica`
- LaTeX
- Assembler (microcontroller)

## Associations

- **2012 – present**
  Austrian Physical Society
- **2007 – present**
  MENSA Austria (Member of MENSA International)

## References


1. **Prof. Reinhard Alkofer**
   University of Graz
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   8010 Graz, Austria
   EUROPE
   reinhard.alkofer@uni-graz.at
2. **Prof. Mark G. Alford**
   Washington University in Saint Louis
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   St. Louis, MO 63130-4899
   USA
   alford@wuphys.wustl.edu
3. **Prof. Christof Gattringer**
   University of Graz
   Universitätsplatz 5
   8010 Graz, Austria
   EUROPE
   christof.gattringer@uni-graz.at