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- EDUCATION
- ◇ **Monash University**, Melbourne, Australia.  
PhD. in Mathematics, October 2014.  
Thesis title: *Counting Subgraphs of Regular Graphs using Spectral Moments*.
  - ◇ **University of Victoria**, Victoria, Canada.  
BEd. with a specialization in Mathematics, October 2008.  
Teaching Practicum included, January 2008 – April 2008.  
Certified to teach in British Columbia, Canada, on June 2008.
  - ◇ **University of Victoria**, Victoria, Canada.  
BSc. (Hons) with a Mathematics major and Computer Science minor, May 2006.
- WORK EXPERIENCE
- ◇ **Postdoctorate**, Graph Theory and Complex Network Analysis Group, TU Kaiserslautern, and Embedded Intelligence Group, DFKI, Kaiserslautern, Germany, 2015 – present.
  - ◇ **Affiliate Research Associate**, Department of Mathematical Sciences, Monash University, Clayton, Australia, 2014 – 2015.
  - ◇ **Year 1-12 Substitute Teacher (speciality: mathematics, music)**, School District No. 22, Vernon, Canada, 2008 – 2009.
  - ◇ **Year 1-12 Mathematics Private Tutor**, Vernon, Canada, 2006 – 2009.
  - ◇ **Technical Support Representative (Windows Vista OS, Internet Explorer)**, Sutherland Global, Vernon, Canada, 2006 – 2007.
  - ◇ **Research Assistant for a project on Graph Algorithms in Chemistry**, Faculty of Computer Science and Engineering, University of Victoria, Victoria, Canada, 2005.
- GRANTS, HONORS, & AWARDS
- ◇ **TU Nachwuchsring Individual Funding 2015**.  
Up to 20 post-doctorates and junior professors from TU Kaiserslautern were awarded up to 10,000 Euros each; awarded towards the active promotion of young scholarly talent.
  - ◇ **Heidelberg Laureate Forum, 2014**.  
I attended this prestigious forum as one of the 100 invited mathematicians; an international committee of experts ensures that only the most qualified young researchers are selected.
  - ◇ **Faculty of Science Dean's Postgraduate Research Scholarship Program, 2009**.  
I was awarded this scholarship for having achieved first class honours in previous degrees and for having demonstrated exceptional research potential to undertake a higher degree by research.
  - ◇ **NSERC Undergraduate Student Research Award, 2005**.  
This award afforded me the opportunity to start my research degree in my undergraduate and resulted in my first publication. Selection was based on academic record and research aptitude.

- JOURNAL ARTICLES
- ◇ **M. Kleinbauer and I. M. Wanless**, Counting subgraphs in strongly regular graphs. *In preparation.*
  - ◇ **M. Minchenko and I. M. Wanless (2015)**, Quartic integral Cayley graphs. *Ars Math. Contemp.*, 8: 381–408.
  - ◇ **M. Minchenko and I. M. Wanless (2014)**, Spectral moments of regular graphs in terms of subgraph counts. *Linear Algebra Appl.*, 446: 166–176.
  - ◇ **W. Myrvold, B. Bultena, S. Daugherty, B. Debroni, S. Girn, M. Minchenko, J. Woodcock, and P. Fowler (2007)**, FuiGui: a graphical user interface for investigating conjectures about fullerenes. *MATCH Commun. Math. Comput. Chem.*, 58 (2): 403–422.
- CONFERENCE PROCEEDINGS
- ◇ **M. Kleinbauer, B. D. McKay**, Playing checkers on a donut: visualizing the only quartic vertex-transitive integral graph on 32 vertices. TU Kaiserslautern Young Researchers Symposium, YRS 2016. *Accepted.*
  - ◇ **M. Kleinbauer, P. Treiber, P. Lukowicz, and K. A. Zweig**, Deriving a floor plan graph using temporal proximity data. *Submitted.*
  - ◇ **A. Klaus, M. Kleinbauer, J. Doerr, and K. A. Zweig**, Enumerating possible race conditions. *Submitted.*
  - ◇ **W. Schlauch, M. Kleinbauer, P. Lukowicz, and K. A. Zweig**, Deducing direction from dynamic adjacency data. *In preparation.*
- POSTERS
- ◇ **M. Minchenko (2011)**, Connected quartic bipartite integral Cayley graphs. International Workshop On Combinatorial Algorithms, IWOCA 2011.
- CONFERENCES & SEMINARS
- ◇ **TU Kaiserslautern Computer Science PhD Talk Series 2015**, TU Kaiserslautern, Germany. *Investigating the Missing Moore Graph.*
  - ◇ **Algebraic Combinatorics: Spectral Graph Theory, Erdős-Ko-Rado Theorems and Quantum Information Theory 2014**, Waterloo, Canada.
  - ◇ **37th ACCMCC (Australasian Conference on Combinatorial Mathematics & Combinatorial Computing) 2013**, Perth, Australia.  
*Presented Work: Counting Subgraphs in Strongly Regular Graphs.*
  - ◇ **36th ACCMCC 2012**, Sydney, Australia.  
*Presented Work: Investigating the Missing Moore Graph.*
  - ◇ **Discrete Mathematics Research Group Seminars 2012**, Monash University, Melbourne, Australia. *The search for connected regular integral graphs.*
  - ◇ **35th ACCMCC 2011**, Monash University, Melbourne, Australia.  
*Presented Work: Some Vertex-Transitive Integral Graphs.*
  - ◇ **AMSSC (Australian Mathematical Sciences Student Conference) 2011**, Monash University, Melbourne, Australia.  
*Presented Work: Searching for Certain Cayley Integral Graphs.*
  - ◇ **FIT (Faculty of Information Technology) Postgraduate Lunch Seminars 2011**, Monash University, Melbourne, Australia. *Searching for Certain Cayley Integral Graphs.*
  - ◇ **34th ACCMCC 2010**, Australian National University, Canberra, Australia.  
*Presented Work: Quite Possibly an Integral Graph.*
  - ◇ **54th Annual AustMS (Australian Mathematical Society) Meeting 2010**, University of Queensland, Brisbane, Australia.  
*Presented Work: Using Generating Functions to Count Closed Walks.*
  - ◇ **33rd ACCMCC 2009**, New Castle, Australia.  
*Presented Work: Closed Walks in a Regular Graph.*

- RESEARCH AND TEACHING
- ◇ **Lecturer for Graph Theory**, Summer Semester 2016.  
Faculty of Computer Science, TU Kaiserslautern, Germany.
  - ◇ **Postdoctorate**, 2015 – present.  
Projects: Activity Recognition for Sensor Networks, Graph Representations of Race Conditions, Network Motif Identification, Link Assessment. Tasks include student supervision. Graph Theory and Complex Network Analysis Group, TU Kaiserslautern, and Embedded Intelligence Group, DFKI, Kaiserslautern, Germany.
  - ◇ **Teaching Assistant for Complex Network Analysis**, Winter Semester 2015/16.  
Faculty of Computer Science, TU Kaiserslautern, Germany.
  - ◇ **Affiliate Research Associate**, 2014 – 2015.  
Project: Counting subgraphs in Strongly Regular Graphs.  
Department of Mathematical Sciences, Monash University, Clayton, Australia.
  - ◇ **Teaching Assistant for Linear Algebra**, Spring Semester 2010, Spring Semester 2011, Spring Semester 2012, Spring Semester 2013.  
Department of Mathematical Sciences, Monash University, Melbourne, Australia.
  - ◇ **Research Assistant**, 2005.  
Project: Graph Algorithms in Chemistry.  
Faculty of Computer Science and Engineering, University of Victoria, Victoria, Canada.
  - ◇ **Teaching Assistant for Abstract Algebra**, Spring Semester 2004.  
Department of Mathematics, University of Victoria, Victoria, Canada.
- PROFESSIONAL DEVELOPMENT
- ◇ **The Mentoring project for young scientists TU Kaiserslautern, 2015/2016.**  
Mentorees receive individual coaching, attend discussions, and meet with a successful professional all centered around networking and aiding in career advancement.
  - ◇ **15th ADFOCS (Max Planck Advanced Course on the Foundations of Computer Science) 2014.** This workshop titled “Current Trends in Network Optimization” covered cutting edge topics including the use of spectral methods in optimization and the optimization challenges of big data.
  - ◇ **SODO (Symmetries of Discrete Objects) MAGMA Workshop 2012.** Instructional courses were provided on the MAGMA package and its capabilities especially for handling discrete structures and their automorphisms.  
Accepted Talk: *Some Vertex-Transitive Integral Graphs*.
  - ◇ **ALTC (Australian Learning and Teaching Council Project) 2010.** This mathematical sciences specific professional development programme for lecturers and tutors presented practical strategies for teaching and assessment to enhance student engagement and learning in mathematics.
  - ◇ **AMSI (Australian Mathematical Sciences Institute) Australian Graduate Theme Program 2010.** University of Queensland, Brisbane, Australia, Topic: Graphs, Networks, and Designs.  
Accepted Talk: *Using Generating Functions to Count Closed Walks*.
- DEVELOPED SOFTWARE
- ◇ **FuiGui (Fullerene Interactive Graphical User Interface):** A graphical user interface designed to aid the exploration of fullerenes and their parameters as graphs. FuiGui is an extendable tool, developed in Java. This was a joint project with Wendy Myrvold, Bette Bultena, Sean Daugherty, Bradley Debroni, Sameer Girn, Jenny Woodcock, and Patrick Fowler.
- REVIEWER FOR
- ◇ **Journal of Discrete Algorithms**
  - ◇ **NetSci-X Conference Proceedings**

- PROFESSIONAL MEMBER-SHIPS
- ◇ **CMSA (Combinatorial Mathematics Society of Australasia), 2009 – 2014.**
  - ◇ **AustMS (Australian Mathematical Society), 2010 – 2013.**
- COMMITTEES & MEMBER-SHIPS
- ◇ **TU-Nachwuchsring, member 2015 – present**, TU Kaiserslautern, Germany. This group offers early career researchers of the university extensive support for career development through funding schemes, networking opportunities, and seminars.
  - ◇ **Discrete Mathematics Research Group, member 2009 – 2015**, Monash University, Melbourne, Australia. This group is based jointly in the Faculty of Information Technology and the School of Mathematical Sciences. It is one of the largest discrete mathematics groups in Australia.
  - ◇ **Faculty of Science Postgraduate Committee, member 2010 – 2012**, Monash University, Australia. As a postgraduate representative, I was nominated by the student body to represent the graduate students of Mathematical Sciences. The role is to liaise with department staff on behalf of the students.
  - ◇ **Australian Mathematical Sciences Students' Conference, organizer 2011**, Monash University, Melbourne, Australia. This conference was started towards the greater goal to build a national community of young mathematicians.
- OUTREACH
- ◇ **Monash Girl Geek Coffee Club, member 2010 – 2014**, Monash University, Melbourne, Australia. Engaging women in computer science and related fields, sponsored by Google.
  - ◇ **School of Mathematical Sciences Lunch Maths, organizer 2010 – 2011**, Monash University, Melbourne, Australia. Accessible seminars towards graduate recruitment.
  - ◇ **PIMS (Pacific Institute for the Mathematical Sciences) Educational Activities, volunteer 2004 – 2008**, Victoria, Canada. I was involved in many *Math Mania* activity fairs and *Math Challengers* game-show style math competitions for participating elementary schools; <http://www.pims.math.ca/education>.
  - ◇ **SPARCS (Solving Problems with Algorithms, Robots and Computer Science), member 2008**, University of Victoria, Victoria, Canada; <http://www.csc.uvic.ca/Outreach/sparcs.htm>.
- SOCIAL ACTIVITIES
- ◇ **Cäcilia Holz Church Choir, member 2014 – present** Pfarrkirche St. Josef, Holz, Germany. Performances include Léo Delibes' Messe Brève.
  - ◇ **Badminton Club, organizer 2010 – 2012, member 2009 – 2013**, Monash University, Australia. Weekly social badminton between graduate students and academic staff.
  - ◇ **MonUCS (Monash University Choral Society), member 2011 – 2012**, Monash University, Australia. Performances included Carmina Burana.
- REFERENCES
- ◇ **Prof. Dr. Katharina Anna Zweig**, current supervisor.  
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Website: <http://gtna.informatik.uni-kl.de/en/gruppe/zweig/>.  
Department of Computer Science, TU Kaiserslautern, 67653 Kaiserslautern, Germany.
  - ◇ **Professor Ian M. Wanless**, supervisor of my PhD.  
Phone: +61 3 99054442,  
Email: [ian.wanless@monash.edu](mailto:ian.wanless@monash.edu),  
Website: <http://users.monash.edu.au/~iwanless/>.  
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