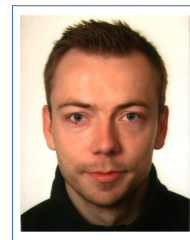


Andreas Wachtel

Resumé

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Education

- 2012–2015 **PhD in science**, *University of Strathclyde*, Glasgow, UK.
🎓 Degree awarded (viva passed without corrections) on December 15, 2015
- 2007–2012 **Diplom Technomathematiker**, *Dresden University of Technology*, Dresden, Germany, avg. 1.3.
Major in mathematics, minors in electrical engineering and computer science
- 2006–2007 **Technical diploma**, *BSZ für Bau und Technik*, Dresden, Germany, avg. 1.1.
- 1998–2001 **Electrician for IT-Systems**, *Siemens Professional Education*, Leipzig, Germany.
Vocational training

PhD thesis

- title *Stabilised mixed finite element methods on anisotropic meshes*
- supervisor Dr. G. R. Barrenechea
- area Numerical Analysis

Diplom thesis

- title *A C^0 interior penalty method for a fourth-order elliptic problem*
- supervisors Prof. H.-G. Roos and Dr. S. Franz
- area Numerical Analysis

Professional experience

- 2013–today **Publications and contributions to conferences**, *see below*.
- 2017–today **Associate Professor**, *ITAM, Río Hondo 1*, México.
Teaching: *Cálculo Numérico y Programación Lineal* (Primavera 2018)
Teaching: *Cálculo Numérico y Programación Lineal* (Otoño 2017)
Employed since August 2017
- 2017–2017 **Visiting Professor**, *ITAM, Río Hondo 1*, México.
Teaching: *Álgebra Lineal y Cálculo Numérico* (Primavera 2017)
Employed from January 2017 to July 2017.

- 2016–2017 **Math teacher**, *Colegio Alemán, Xochimilco*, México.
Employed from August 2016 to January 2017.
- 2016 **Digital Developer**, *Student Loans Company*, UK.
(Java) Developer involved in continuous {deployment, delivery and integration} of SLC-internal projects. This is achieved by test-driven-development and mutation-testing.
Employed from April 2016 to August 2016.
- 2013–2015 **Teaching Assistant**, *University of Strathclyde*, Glasgow, UK.
Tutor for mathematics for engineers and mathematicians
(Courses: MM112, MM114, MM115, MM103)
- 2008–2012 **Teaching Assistant**, *Dresden University of Technology*, Dresden, Germany.
(2010–2012) Graduate TA for programming (Fortran) and numerical mathematics,
(2008–2010) Undergraduate TA for programming (Fortran).
- 2001–2007 **Service Specialist**, *Siemens AG and Nokia-Siemens-Networks*, Germany.
Service personnel for Windows- and Unix-based Network Management Centres (NMC) of mobile service providers.
Detailed achievements at customer sites:
 - (08/2001–09/2004) T-Mobile, Nürnberg, Germany
On-site support for local staff in:
 - maintaining network components with new NMC during and after pilot phase;
 - solving networking issues with network protocols (e.g. X.25);
 - administrating Oracle databases within NMCs;
 - (10/2004–09/2005) Siemens S. A. de C. V., D. F., Mexico
Project responsible for NMC and training of local staff;
 - (11/2005–02/2006) Siemens Communications, Inc., USA
Project support and documentation of NMC;
 - (02/2006–08/2006) T-Mobile, Stuttgart, Germany
Developing Unix shell scripts analysing software changes made during upgrades of NMCs.

Languages

German	native
English	scientific and conversational
Spanish	conversational and mathematical

Technical skills

OS	Windows, Linux/Unix
Software	(Libre/MS) Office, L ^A T _E X, vi, MatLab, FEniCS
Languages	Fortran 95/2003, C++, Pascal, VBA, Python, HTML, Haskell, Java
Development	git, intelliJ, gradle, go-CD-pipelines

List of publications

Submitted

- [1] G. R. Barrenechea and A. Wachtel, “The inf-sup stability of the lowest order Taylor–Hood pair on anisotropic meshes,” *arXiv:1710.07857*, 2017.

Published

- [2] G. R. Barrenechea and A. Wachtel, “Stabilised finite element methods for the Oseen problem on anisotropic quadrilateral meshes,” *ESAIM: M2AN*, 2017.
- [3] G. R. Barrenechea and A. Wachtel, “A note on the stabilised Q1-P0 method on quadrilaterals with high aspect ratios,” *Boundary and Interior Layers, Computational and Asymptotic Methods - BAIL 2014*, vol. Lecture Notes in Computational Science and Engineering, Vol. 108.
- [4] M. Ainsworth, G. R. Barrenechea, and A. Wachtel, “Stabilization of high aspect ratio mixed finite elements for incompressible flow,” *SIAM Journal on Numerical Analysis*, vol. 53, no. 2, pp. 1107–1120, 2015.
- [5] G. R. Barrenechea, T. P. Barrios, and A. Wachtel, “Stabilised finite element methods for a bending moment formulation of the Reissner-Mindlin plate model,” *Calcolo*, vol. 52, no. 3, pp. 343–369, 2015.
- [6] S. Franz, H.-G. Roos, and A. Wachtel, “A C^0 interior penalty method for a singularly-perturbed fourth-order elliptic problem on a layer-adapted mesh,” *Numer. Methods Partial Differential Equations*, vol. 30, no. 3, pp. 838–861, 2014.

Contributions to conferences

- 10/2017 Talk: "Errores de redondeo y re-escalamiento del tiempo en sistemas dinámicos", in the *tardeadas de matemáticas*, ITAM, CDMX, México
- 02/2017 Talk: "Finite Elements on anisotropic meshes", at the *Seminario de matemáticas*, ITAM, CDMX, México
- 11/2016 Talk: "Finite Elements on anisotropic meshes", at the *X Jornadas de modelación de matemáticas*, UACM, CDMX, México
- 06/2015 Talk: "Stabilization of High Aspect Ratio Mixed Finite Elements for Incompressible Flow", at the *26th Biennial Numerical Analysis Conference*, Glasgow, U.K.
- 04/2015 Talk: "Incompressible flow and (stabilised) mixed finite element methods on highly stretched meshes", at the *12th Annual Workshop on Numerical Methods for Problems with Layer Phenomena*, Dresden, Germany
- 03/2015 Talk: "Stokes flow and (stabilised) finite element approximations on highly stretched meshes", at the *SIAM CSE 2015*, Salt Lake City, USA
- 09/2014 Talk: "Stokes flow and (stabilised) finite element approximations on highly stretched meshes", at the *SIAM Student chapter*, Reading, U.K.
- 07/2014 Poster at the *LMS EPSRC Symposium*, Durham, U.K.
- 06/2014 Talk: "Stokes flow and finite element approximations on highly stretched meshes", at a *PhD student conference*, The Burn, U.K.
- 04/2014 Poster at the *Napier 400 ECMS meeting*, Edinburgh, U.K.
- 06/2013 Talk: "A C^0 interior penalty method for a singularly-perturbed elliptic problem of 4th order on layer-adapted meshes", at the *25th Biennial Numerical Analysis Conference*, Glasgow, U.K.