

Dr. Christian Rudloff

Curriculum Vitae

Anastasius Grün Gasse 11/21-22
1180 Wien
☎ +43 (699) 1108 1596
✉ rudloff_73 (at) yahoo.co.uk
🌐 www.christianrudloff.com

Education

- 1997–2001 **PhD in Mathematics**, *University of East Anglia*, Norwich, UK.
Dissertation in representation theory of finite groups
- 1996–1997 **MSc in Mathematics**, *University of East Anglia*, Norwich, UK.
Master thesis in number theory
- 1993–1996 **Vordiplom Mathematics minor Management**, *Universität Regensburg*, Regensburg, Deutschland.

Experience

- 06/2008 – **Scientist**, *Austrian Institute of Technology*, Vienna, Austria.
current Development and calibration of traffic simulation models; Statistical data analysis of large mobility data sets; Choice modelling.
- 09/2013– **Visiting Researcher**, *Massachusetts Institute of Technology*, Cambridge, MA, USA.
10/2013 Collaboration on project on extraction of mobility behaviour from mobile phone data.
- 09/2012– **Visiting Researcher**, *Massachusetts Institute of Technology*, Cambridge, MA, USA.
10/2012 Collaboration on project on extraction of mobility motifs from travel surveys.
- 04/2006– **Project Collaborator**, *Vienna University of Economics and Business*, Vienna,
05/2008 Austria.
WWTF-project 'Integrated demand and supply chain management'; Development of econometric methods to forecast demand from high-dimensional sales-data
- 04/2006– **Project Assistant**, *Vienna University of Technology*, Vienna, Austria.
12/2006 FWF-project 'Identifikation multivariater dynamischer Systeme'; Research Group: Econometrics and System Theory
- 09/2003– **Lecturer in Mathematics**, *Carnegie Mellon University and Chatham College*, Pitts-
09/2005 burgh, PA, USA.
Teaching classes in Mathematics
- 05/2002– **Database Consultant**, *CACI Information Solutions*, London, UK.
08/2003 Building and maintenance of geographical data-bases for marketing in InSite and MS-Access

Languages

German **Native Speaker**
English **Fluent**

Computer skills

Mathematical and statistical tools:	Matlab, R, Gap	Programming Languages:	Java, C++
Databases:	PostgreSQL, MS Access, InSite	Operating Systems:	Windows, Linux
Scripting Languages:	Latex, HTML, xml	Office Tools:	Word, Excel, Powerpoint

Interests

Waterpolo, climbing, singing, travelling, reading, ski touring, hiking

Publications

Journal Papers

C. Rudloff, D. Bauer, M. Leodolter, R. Auer, W. Brög, and K. Kehnscherper. Influence of weather on transport demand: A case study from the vienna region. *Transportation Research Record: Journal of the Transportation Research Board*, accepted for publication, 2015.

P. Campigotto, C. Rudloff, D. Bauer, and M. Leodolter. Personalized and situation-aware multimodal route recommendations: the favour algorithm. *IEEE transactions on ITS*, submitted, 2015.

S. Seer, C. Rudloff, T. Matyus, and N. Brändle. Validating social force based models with comprehensive real world motion data. *Transportation Research Procedia*, 2:724–732, 2014.

C. Rudloff and B. Lackner. Modeling demand for bikesharing systems. *Transportation Research Record: Journal of the Transportation Research Board*, 2430(1):1–11, 2014.

T. Eiter, T. Krennwallner, M. Prandtstetter, C. Rudloff, P. Schneider, and M. Straub. Semantically enriched multi-modal routing. *International Journal of Intelligent Transportation Systems Research*, pages 1–16, 2014.

C. Rudloff, R. Schönauer, and M. Fellendorf. Comparing a calibrated shared space simulation model to real life data. *Transportation Research Record: Journal of the Transportation Research Board*, 2390:44–52, 2013.

R. Kölbl, D. Bauer, and C. Rudloff. Travel behavior and e-mobility in germany: Is the problem the driving range or costs or both? *Transportation Research Record: Journal of the Transportation Research Board*, 2385:45–52, 2013.

A. Taudes and C. Rudloff. Integrating inventory control and a price change in the presence of reference price effects: a two-period model. *Mathematical Methods of Operations Research*, 75(1):29–65, 2012.

R. Schönauer, M. Stubenschrott, W. Huang, C. Rudloff, and M. Fellendorf. Modeling concepts for mixed traffic: Steps towards a microscopic simulation tool for shared space

zones. *Transportation Research Record: Journal of the Transportation Research Board*, 2316:114–121, 2012.

O. Roider, C. Rudloff, and M. Ray. An individualized travel information system for optimizing mode and route choice behavior of commuters. *Procedia-Social and Behavioral Sciences*, 48:1948–1957, 2012.

C. Rudloff, T. Matyus, S. Seer, and D. Bauer. Can walking behavior be predicted? an analysis of the calibration and fit of pedestrian models. *Transportation Research Record: Journal of the Transportation Research Board*, 2264:101–109, 2011.

L. Gimp-Heersink, C. Rudloff, M. Fleischmann, and A. Taudes. Integrating pricing and inventory control: Is it worth the effort? *Business Research*, 1(1):106–123, 2008.

C. Rudloff and A. E. Zalesski. On multiplicity 1 eigenvalues of elements in irreducible representations of finite quasi-simple groups. *Journal of Group Theory*, 10(5), January 2007.

Conference Presentations with Proceedings

M. Leodolter and C. Rudloff. Learning mobility profiles: an application as personalised weather warning system. In *Proceedings of Semantics 2015*, 2015.

R. Schnöner, G. Richter, M. Straub, C. Rudloff, and M. Dragaschnig. Red or green: Identifying patterns in traffic signal through cyclists gps tracks. In *Compendium of papers of the TRB 93rd Annual Meeting*, Washington, DC, USA, 2014.

C. Rudloff, T. Matyus, and S. Seer. Comparison of different calibration techniques on simulated data. In U. Weidmann, U. Kirsch, and M. Schreckenberg, editors, *Pedestrian and Evacuation Dynamics 2012*, pages 657–672. Springer International Publishing, 2014.

C. Schneider, C. Rudloff, D. Bauer, and M. Gonzalez. Daily travel behavior: Lessons from a week-long survey for the extraction of human mobility motifs from mobile phone data. In *Proceedings of the UrbComp 2013*, Chicago, IL, USA, 2013.

G. Richter, Ch. Rudloff, and A. Graser. Extraction of bicycle commuter trips from day-long GPS trajectories. In *Proceedings of the pre_AGILE Conference Workshop: Understanding Urban Cycling: A Data Challenge*, Leuven, Belgium, 2013.

U. Ritzinger, J. Puchinger, C. Rudloff, and R. Hartl. Real-world patient transportation. In *Proceedings (extended abstracts) of: ODYSSEUS, Mykonos, Greece*, 2012.

T. Eiter, T. Krennwallner, M. Prandtstetter, C. Rudloff, P. Schneider, and M. Straub. Semantically enriched multi-modal routing. In *Proceeding of: 19th ITS World Congress*, 2012.

I. Zeiler, C. Rudloff, and D. Bauer. Modelling random taste variations on level changes in passenger route choice in a public transport station. In R. Peacock, E. Kuligowski, and J. Averill, editors, *Pedestrian and Evacuation Dynamics 2010*, pages 185–195. Springer US, Boston, MA, 2011.

C. Rudloff, D. Bauer, T. Matyus, and S. Seer. Mind the gap: Boarding and alighting processes using the social force. In IEEE, editor, *Proceedings of the 14th IEEE ITSC*, 402, 2011. IEEE Intelligent Transportation Systems.

C. Rudloff and M. Ray. Detecting travel modes and profiling commuter routes solely based on GPS data. In *Compendium of papers DVD TRB 89th Annual Meeting*, 2010.

Conference Presentations

C. Rudloff, B. Lackner, M. Prandtstetter, and M. Straub. Demand modelling as a basis for optimising the rearrangement of bikes in the vienna bicycle sharing system. Presented at EURO XXVI, Rome, Italy, 2013.

U. Ritzinger, J. Puchinger, C. Rudloff, and R. Hertl. Real-world patient transportation. Presented at ODYSSEUS 2012, Mzkonos, Greece, 2013.

G. Richter, C. Rudloff, and A. Graser. Extraction of bicycle commuter trips from day-long gps trajectories. Presented at Understanding Urban Cycling: A Data Challenge (CDC 2013), Leuven, Belgium, 2013.

A. Graser and C. Rudloff. On the transferability of mode detection algorithms. Presented at Urbanism on Track Workshop, Delft, Netherlands, 2012.

C. Rudloff, L. Gimpl-Heersink, M. Fleischmann, and A. Taudes. Integrated inventory and pricing with reference effects. Presented at EURO XXI, Prague, Czech Republic, 2007.

L. Gimpl-Heersink, C. Rudloff, and A. Taudes. Integrated pricing and inventory control with reference effects. Presented at 7th Annual INFORMS Pricing and Revenue Management Conference, 2007, Barcelona, Spain, 2007.

Theses

C. Rudloff. *On eigenvalue multiplicities of p -elements in complex representations of finite quasi-simple groups*. PhD dissertation, University of East Anglia, Norwich, UK, 2001.

C. Rudloff. *The theorem of Riemann-Roch for algebraic curves*. MSc dissertation, University of East Anglia, Norwich, UK, 1997.

Supervised Theses

V. Öllerer. Imputation and prediction of multivariate travel time data. Master's thesis, Vienna University of Technology, 2012.

Reviewing activities

- Journals Transportation Research Part A, Journal of Choice Modelling, Transport Policy, European Transport Research Review, International Journal of Sustainable Transportation
- Conferences TRB annual meeting, IEEE ITSC