



Europass Curriculum Vitae



Personal information

Surname(s) / First name(s) Gebetsroither-Geringer Ernst, Dr. Mag.
Address(es) AIT Austrian Institute of Technology GmbH, Center for Energy
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E-mail ernst.gebetsroither@ait.ac.at
Nationality Austrian
Date of birth 09.05.1970
Gender male
Business Unit Sustainable Buildings and Cities– Research Field Sustainable Cities
Employment at AIT 15.01.1999-ongoing
Einstufung F 03

Work experience

Dates **1997-1998**
Occupation or position held Project related staff
Main activities and responsibilities Scientific member of the project HAUSSAN
Name and address of employer Austrian Energy Agency, Mariahilfer Straße 136
1150 Vienna
Type of business or sector Energy research institute
Dates **Since 1999 (continued)**
Occupation or position held Scientist
Main activities and responsibilities Regional climate simulation
Climate change impact modelling and climate change adaptation strategies
Urban planning and urban policy development
Land use change - and urban growth simulation
Modellbuilding and Simulation, Qualitative and quantitative System Analysis with focus on spatial systems using GIS, System Dynamics modelling, Agent-based Modelling and Mutli-method modelling
Software Development
National Working experience
Leading a number of research and consulting projects since 2000, as scientist in all fields listed above.
EU project experience
Working on European Research projects since 2000 as work-package coordinator, as scientist in all fields listed above.

Coordinating at AIT the MANFRED project funded by the European Commission, dealing with impact analyses of Climate change to forest areas of the European Alpine region and other national climate modelling and impact analysis.

Coordinating at AIT the ARTS (Accelerating and Rescaling Transitions to Sustainability) project funded by the European Commission through the FP7 programme. <http://acceleratingtransitions.eu> Working on system analysis, modelling and simulation of transition initiatives.

Working in several projects for Latin American Cities since 2014 funded by Interamerican Development Bank – dealing with support for urban planning and policy development. Working on tool development (Software Development) for urban development simulation and infrastructure cost assessment.

Name and address of employer AIT Austrian Institute of Technology GmbH, Center for Energy
Donau-City-Strasse 1, 1220 Vienna, Austria

Type of business or sector Research Institute

Dates **2007-2008 (sabbatical)**

Occupation or position held PhD Student

Main activities and responsibilities Developing a part of the doctoral thesis

Name and address of employer *Universidad Autónoma de Barcelona,*
Institute for Artificial Intelligence (IIA)
IIA-CSIC Campus de la UAB, E-08193 Bellaterra, Catalonia (Spain)

Type of business or sector University

Lektures	GEBETSROITHER Ernst	Übungen zu Systemwissenschaften	SS2012 SS2013	Karl-Franzens-Universität Graz	Institut für Systemwissenschaften, Innovations- und Nachhaltigkeitsforschung
	GEBETSROITHER Ernst	Methoden der Modellbildung und Simulation	Since WS 2011 ongoing	Universität Wien	Institute für Humanökologie
	GEBETSROITHER Ernst	Ökologische Regelkreise, im Rahmen der Ökologie Vorlesung	WS 2008/2009 WS 2009/2010	Fachhochschule Technikum Wien	Technisches Umweltmanagement
	GEBETSROITHER Ernst	Proseminar Qualitative Systemwissenschaften	SS 2010	Karl-Franzens-Universität Graz	Institut für Systemwissenschaften, Innovations- und Nachhaltigkeitsforschung
	GEBETSROITHER Ernst	Technisches Umweltmanagement: Ökologische Regelkreise	WS 2007/08	Fachhochschule Technikum Wien	Technisches Umweltmanagement
	GEBETSROITHER Ernst	Simulation & Modelling; Termine 11.4., 18.4., 24.5. bzw. 31.5.	SS 2008	Fachhochschule Technikum Wien	Technisches Umweltmanagement
	GEBETSROITHER Ernst; SCHAMANEK A.	Modellbildung und Simulation Dynamischer Systeme. Grundlagen und Anwendungen in der Ökologie	SS 2001, 2h pro Woche; SS 2002, 2h pro Woche;	Universität Wien	Institut für Ökologie und Naturschutz

Betreuung / Mentoring von Diplomanden / Dissertanten Master thesis of Dominique Piegsa at the FH St. Pölten
Bachelor and Master thesis of Andreas Pötscher FH Technikum Wien
Different Bachelor thesis at the University of Graz (ISIS)

Awards

Education and training

Dates **2007 - 2010**

Title of qualification awarded Dr. rer. nat. (with honor)

Principal subjects/occupational skills covered Dissertation: Combining Multi-Agent Systems Modelling and System Dynamics Modelling in theory and practice.

Name and type of organisation providing education and training Doctoral programme in Natural Sciences in the subject Mathematics, University of Klagenfurt

Dates **1991-1997**
 Title of qualification awarded Mag. rer. nat. (with honor)
 Principal subjects/occupational skills covered Ecology, Biology, Renewable Energy systems
 Name and type of organisation providing education and training University of Vienna, Technical University Vienna

Dates **1985-1989**
 Title of qualification awarded High School Certificate
 Principal subjects/occupational skills covered Mechanical Engineering
 Name and type of organisation providing education and training HTBLA für Maschinenbau Vöcklabruck (ÖÖ)

Mother tongue(s) German

Other language(s) **English, Spanish**

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user
A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user

(*) *Common European Framework of Reference for Languages*

Social skills and competences Leading of multidisciplinary teams within several Projects

Organisational skills and competences Project management of several Projects

Technical skills and competences Ecology, Biology, Energy, System thinking, Complex Adaptive Systems
 Multi-Agent Systems, System Dynamics Modelling and simulation, Complex System Analysis,
 Geographic Information Systems, Spatial Modelling, Climate modelling

Computer skills and competences Java Programming, VBA Programming, MS Office (Word, PowerPoint, Excel), QGIS, ArcMap, R-
 Statistics Programming, Java Script Programming, GeoServer

Additional information Selected Publications 2000 till 2017

Selected publications 2000 - 2017

Books and book chapters

Walloth, Christian, Ernst Gebetsroither-Geringer, and Funda Atun (2016).
 "Introduction: Overcoming Limitations of Urban Systems Models and of Data Availability." In Understanding Complex Urban Systems, edited by Christian Walloth, Ernst Gebetsroither-Geringer, Funda Atun, and Liss C. Werner, 1–14. Understanding Complex Systems. Springer International Publishing, 2016. doi:10.1007/978-3-319-30178-5_1.

E. Gebetsroither-Geringer (2014)
"Multimethod Modeling and Simulation Supporting Urban Planning Decisions";
in: "Understanding Complex Urban Systems: Multidisciplinary Approaches to Modeling", Springer International Publishing, Switzerland, 2014, ISBN: 978-3-319-02995-5, S. 13 - 27.

Niklaus E. Zimmermann, Ernst Gebetsroither, Johann Züger, Dirk (2013), Schmatz and Achilleas Psomas (2013).
"Future Climate of the European Alps, Management Strategies to Adapt Alpine Space Forests to Climate Change Risks",
Dr. Gillian Cerbu (Ed.), ISBN: 978-953-51-1194-8, InTech, DOI: 10.5772/56278. Available from:
<http://www.intechopen.com/books/management-strategies-to-adapt-alpine-space-forests-to-climate-change-risks/future-climate-of-the-european-alps>

Ernst Gebetsroither, Johann Züger and Wolfgang Loibl (2013)
Drought in Alpine Areas Under Changing Climate Conditions, Management Strategies to Adapt Alpine Space Forests to Climate Change Risks, Dr. Gillian Cerbu (Ed.), ISBN: 978-953-51-1194-8, InTech, DOI: 10.5772/56277. Available from:
<http://www.intechopen.com/books/management-strategies-to-adapt-alpine-space-forests-to-climate-change-risks/drought-in-alpine-areas-under-changing-climate-conditions>

Gebetsroither, E. (2012)
Multimethod Modeling and Simulation Supporting Urban Planning Decisions. Essener Forum Baukommunikation (special issue)

Gebetsroither, E., Loibl, W. (2007)
GIS-Based Water Resource Management of the Dead Sea Region - Integrating GIS, Systems Dynamics and Agent Based Modelling. Zeil, P., Kienberger, S. (Hrsg.), Geoinformation for Development. Bridging the divide through partnerships, Wichmann, Salzburg, 26-32

Loibl, W., Gebetsroither, E. (2007)
Middle East - Water Challenge - Supporting Decision and Negotiation Process through Modelling Land Use Change in the Dead Sea Area Considering alternative Water Resource. Zeil, P., Kienberger, S. (Hrsg.), Geoinformation for Development. Bridging the divide through partnerships, Wichmann, Salzburg, 147-153

Orthofer, R., Gebetsroither, E. and Lehrer, D. (2007)
Scenarios For a More Sustainable Water Management in The Dead Sea Basin. Lipchin, C., Pallant, E., Saranga, D., Amster, A. (Eds.), Integrated Water Resources Management and Security in the Middle East, Springer-Physica Verlag, Berlin - London - New York, 297-321

Gebetsroither, E., Kaufmann, A., Gigler, U. and Resetarits, A. (2006)
Agent-Based Modelling of Self-Organisation Processes to Support Adaptive Forest Management. Billari, F.C., Fent, T., Prskawetz, A. and Scheffran, J. (Eds.), Agent-Based Computational Modelling. Applications in Demography, Social, Economic and Environmental Sciences, Springer Physica Verlag, Heidelberg, 153-172

Conference proceedings & ref. Journal contributions

Valkering, P.; Yücel, G.; Gebetsroither-Geringer, E.; Markvica, K.; Meynaerts, E.; Frantzeskaki, N. (2017)
"Accelerating Transition Dynamics in City Regions: A Qualitative Modeling Perspective". *Sustainability* 2017, 9, 1254.

Gebetsroither-Geringer, E. and Loibl, W. (2015).
"Urban Development and Infrastructure Cost Modelling for Managing Urban Growth in Latin American Cities."
http://www.corp.at/archive/CORP2015_120.pdf .

Gebetsroither-Geringer, E. and Loibl, W. (2014).
"Urban Development Simulator: An Interactive Decision Support Tool for Urban Planners Enabling Citizen's Participation."
http://geomultimedia.org/archive/CORP2014_149.pdf.

Valkering, P., Gebetsroither-Geringer, E., Kölbl, R., Neumann, H., Nevens, F., Yücel, G. (2014)
"Accelerating Transition Initiatives: The role of modelling tools";
Talk: Renewable Energy Research Conference (RERC), Oslo, NO; 16.06.2014 - 18.06.2014; in: "Renewable Energy Research Conference (RERC)", (2014).

- H. Bürbaumer, E. Gebetsroither, E. Schriefl, G. Thenius, M. Baumann, L. Kranzl, C. Paparella, D. Wiedenhofer, M. Windhaber (2011)
 "MOZERT - Modelling personal carbon allocation schemes and analysing their impacts in households and energy system"; in: "the 34th IAEE International Conference: Institutions, Efficiency and Evolving Energy Technologies", IAEE (Hrg.); published by: IAEE - International Association for Energy Economics; Stockholm, 2011, 18 S.
- Gebetsroither, E., T. Tötzer, T., Schriefl E., (2010)
 "Effects of certificate based instruments for CO₂ emission reduction: findings from Austrian research projects"; in: "Proceedings of 1st International Conference on Revisiting the Socio-political and Technological Dimensions of Climate Change", C. Germond-Duret, J. Goulding, F. Pour Rahimian, A. Akintoye (Hrg.); University of Central Lancashire, (2011), ISBN: 978-1-901922-79-0; S. 171 - 191.
- Gebetsroither, E. (2010)
 "Combining Multi Agent System modeling and System Dynamics modeling." Trappl, R.(Edt.), Cybernetics and Systems 2010, Proceedings of the 20th European Meeting on Cybernetics and Systems, March, 6th - 9th, Vienna, 491-496
- Winiwarter, W., Amon, B., Gebetsroither, E., Müller, A., Nakicenovic, N. and Sporer, M. (2010)
 Technologische Maßnahmen zur Minderung der Emissionen von Treibhausgasen in Österreich: Das Projekt "reclip:tom", Paper V07. Universität für Bodenkultur Wien, et al. (Hrsg.), Tagungsband des 11. Österreichischen Klimatag "Klima im Wandel, Auswirkungen und Strategien", 11. - 12. März, Wien,
http://www.austroclim.at/fileadmin/user_upload/ppt_11.Klimatag/Tagungsband_upload.pdf
- Herman, F., Smidt, S., Butterbach-Bahl, K., Englisch, M., Gebetsroither, E., Jandl, R., Katzensteiner, K., Lexer, M., Strelb, F., and Zechmeister-Boltenstern, S. (2007)
 Modeling of Nitrogen Dynamics in an Austrian Alpine Forest Ecosystem on Calcareous Soils: A Scenario-Based Risk Assessment under Changing Environmental Conditions. TheScientificWorldJournal, 7/S1, 159-165
- Gebetsroither, E. and Winiwarter, W. (2006)
 Quantifying CH₄ and NH₃ emissions from wild-living animals. European Geosciences Union, Geophysical Research Abstract Volume 8, 2006, April, 2nd - 7th, Vienna, CD-ROM
- Herman, F., Englisch, M., Gebetsroither, E., Gerzabek, M., Haberhauer, G., Jandl, R., Katzensteiner, K., Lexer, M., Smidt, S., Strelb, F. und Zechmeister, S. (2006)
 Untersuchungen des Stickstoffzyklus und Modellierung des Risikos für Wälder eines kalkalpinen Standortes in Tirol durch eine Klimaerwärmung und durch veränderte Stickstoffeinträge. Schwarzl, I. (Edt.), Tagungsband des 9. Österreichischen Klimatags "Klima, Klimawandel und Auswirkungen", 16.-17. März, Wien
- Kubeczko, K., Gebetsroither, E. (2006)
 Participatory Simulation - Cases from natural resource management. Formalised and Non-Formalised Methods in Resource Management Knowledge and Learning in Participatory Processes, September, 21st - 22nd, Osnabrück,
<http://www.partizipa.uni-osnabrueck.de/wissAbschluss.html>
- Theloke, J., Friedrich, R., Winiwarter, W., Gebetsroither, E., Dore, C., Woodfield, M., Sturman, J., Butterbach-Bahl, K., Smiatek, G., Steinbrecher, R., Kölbl, R., Seufert, G., Korcz, M., Fudala, J., Gaudioso, D., Beekmann, M., Vautard, R. and Saarnio, S. (2006)
 Emissions of primary particles and secondary aerosol precursors from natural and biogenic sources - Overview of the NATAIR Project. European Geosciences Union, Geophysical Research Abstract Volume 8, 2006, April, 2nd - 7th, Vienna, CD-ROM
- Winiwarter, W., Amon, B., Fröhlich, M., Gebetsroither, E., Müller, A. und Nakicenovic, N. (2006)
 Untersuchung technologischer Möglichkeiten, die Treibhausgasemissionen Österreichs zu reduzieren. Schwarzl, I. (Ed.), Tagungsband des 9. Österreichischen Klimatags "Klima, Klimawandel und Auswirkungen", 16.-17. März, Wien
- Gebetsroither, E., Afaneh, A., Lipchin, C. and Lehrer, D. (2004)
 An analysis of the feedback structure driving water dynamics in the Dead Sea region. MEDAQUA II - the INCO-MED Water Conference, 14-15 Jun 2004, Amman, Jordan
- Gebetsroither, E., Kaufmann, A., Gigler, U. and Resetarits, A. (2004)
 Modelling self-organization processes in socio-economic and ecological systems to support adaptive forest management. Hasenauer, H., Annikki, M. (eds.), Proceedings of the International Conference on Modeling Forest Production, April, 19th - 22nd, Vienna, 140-149
- Kaufmann, A., Gebetsroither, E. (2004)

Modelling self-organization processes in socio-economic and ecological systems for supporting the adaptive management of forests. iEMSs, iEMSs - International Environmental Modelling and Software Society, June, 14th - 17th, Osnabrück, 283-288

Gebetsroither, E., and Strebl, F. (2004)

Coupling of Geographic Information System and System Dynamics, Proceedings of the 18th international conference on System Dynamics in Bergen, Norway.

Gebetsroither, E. (2001)

Modelling Carbon Dioxide Pollution in Austria, The Austrian Carbon Balance Model (ACBM). University of Klagenfurt (Edt.), Fifth International Conference on Technology in Mathematics Teaching, August, 6th - 9th, Klagenfurt

Gebetsroither, E. (2000)

The Austrian Carbon Balance Model (ACBM) (A System Analytic View of Austrians National Carbon Cycle.). Proceedings of the 18th International Conference of the System Dynamics Society, August, 6th - 10th, Bergen Norway