J. Florian Wellmann

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Date of Birth: 6 April 1977

Education

2012 Ph.D. in Geology, The University of Western Australia, Australia

2004 Diplom in Geology and Palaeontology, Eberhard-Karls-University Tübingen, Germany

Employment History

since 2014	Juniorprofessor and Junior Research Group Leader, Numerical Reservoir Engineering,
	Aachen Institute of Computational Engineering Science, Germany
2013 - 2014	Postdoctoral Fellow in Multiply Constrained 3D Geological Modeling at The Centre
	for Exploration Targeting (CET), The University of Western Australia (UWA), Perth,
	Australia
2011 - 2013	OCE Postdoctoral Fellow in the Physics of Geology at CSIRO Earth Science and Resource
	Engineering, Perth, Australia
2006 - 2007	Research Assistant, Institute of Geothermal Resource Management (igem), Mainz, Ger-
	many
2004 - 2006	Antarctic Overwintering Scientist (Geophysics), German Polar Institute (AWI), Bremer-
	haven, Germany, Station Neumayer II, Antarctica

Awards and Honors

2015	Outstanding Reviewer Award, Journal of Structural Geology
2013	Best Paper Award, Computers & Geosciences
2013	Invited to present the "Valedictory Address", UWA Graduation Ceremony
2011	UWA Postgraduate representative for the "G8-G09 Clean Energy and Global Change for
	the Future" forum at Tsinghua University, Beijing, China
2010	UWA Graduate Research Student Training Award
2010	Outstanding Young Scientist Poster Award, European Geosciences Union (EGU) General
	Assembly, Vienna
2010	Nick Rock Memorial Prize for outstanding achievements in numerical geosciences (UWA)
2009	UWA Convocation Travel Award
2008 - 2011	Australian Endeavour IPRS scholarship and UWA Postgraduate Award
2004	Deutscher Akademischer Austauschdienst (DAAD), German international exchange
	scholarship

Publications Level A

- 1. S. Corbel and **J. F. Wellmann**. "Framework for multiple hypothesis testing improves the use of legacy data in structural geological modeling." *GeoResJ* 6 (2015): 202-212.
- 2. M. Schoenball, E. Gaucher, L. Dorbath, **J. F. Wellmann**, and Thomas Kohl. "Change of stress regime during geothermal reservoir stimulation." *Geophysical Research Letters* 41.4 (2014): 1163-1170.
- 3. **J. F. Wellmann**, S. Finsterle, and A. Croucher. "Integrating Structural Geological Data into the Inverse Modelling Framework of iTOUGH2." *Computers and Geosciences* 65 (2014): 95-109.

- M. Jessell, L. Aillères, E. de Kemp, M. Lindsay, J. F. Wellmann, M, Hillier, G. Laurent, T. Carmichael, and R. Martin. "Next Generation Three-Dimensional Geologic Modeling and Inversion." Society of Economic Geologists Special Publication 18 (2014): 261-272.
- K. Regenauer-Lieb, M. Veveakis, T. Poulet, J. F. Wellmann, A. Karrech, J. Liu, J. Hauser, C. Schrank, O. Gaede, and M. Trefry. "Multiscale coupling and Multiphysics Approaches in Earth Sciences. Part 1: Theory." *Journal of Coupled Systems and Multiscale Dynamics* 1.1 (2013): 49-73.
- K. Regenauer-Lieb, M. Veveakis, T. Poulet, J. F. Wellmann, A. Karrech, J. Liu, J. Hauser, C. Schrank, O. Gaede, and M. Trefry. "Multiscale coupling and Multiphysics Approaches in Earth Sciences. Part 2: Applications." *Journal of Coupled Systems and Multiscale Dynamics* 1.3 (2013): 281-323.
- 7. **J. F. Wellmann**. "Information Theory for Correlation Analysis and Estimation of Uncertainty Reduction in Maps and Models." *Entropy* 15.4 (2013): 1464-1485.
- 8. **J. F. Wellmann** and K. Regenauer-Lieb. "Uncertainties have a meaning: Information entropy as a quality measure for 3-D geological models." *Tectonophysics* 526 (2012): 207-216.
- 9. **J. F. Wellmann**, A. Croucher, and K. Regenauer-Lieb. "Python scripting libraries for subsurface fluid and heat flow simulations with TOUGH2 and SHEMAT." Computers & Geosciences 43 (2011): 197-206.
- 10. **J. F. Wellmann**, F. G. Horowitz, E. Schill, and K. Regenauer-Lieb. "Towards incorporating uncertainty of structural data in 3D geological inversion." *Tectonophysics* 490.3 (2010): 141-151.

Projects

since 2015 Exploratory Teaching Space (ETS), RWTH Aachen University

Students

since 2014 Simin Huang, Ph.D., RWTH Aachen University. Rhea Bülow, Ph.D., RWTH Aachen University.

Service to the Community

- since 2015: Member of Joint Examination Board and local Head of Administration for the international IDEA League Joint Master Program in "Applied Geophysics" (with TU Delft and ETH Zürich)
- since 2015: Scientific Committee member for organisation of several conferences ("Aachen Conference on Computational Engineering Science", "Say Goodbye to a 2D Earth", "Deformation, Rheology, Tectonics")
- since 2014: Member of the Steering Committee of the ABC/J Geoverbund, a collaborative research network between universities and the Forschungszentrum Jülich
- 2010 2016: Reviewer for Tectonophysics, EnergyTechnology, International Journal of Earth Sciences, The Journal of Structural Geology, Computers & Geosciences and Environmental Modelling & Software, Journal of Hydrology, Interpretation, The International Journal of Geosciences
- 2010 2011: Postgraduate student representative for the School of Earth and Environment and the Faculty of Natural and Agricultural Sciences, member of the Postgraduate Student Association (PSA)