

Derya Gürer

PhD Geology



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Date of birth: August 21st, 1985
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EDUCATION

- UTRECHT UNIVERSITY** **PHD CANDIDATE**
Utrecht, NL Mantle Dynamics & Tectonics groups
2013 – 2017 Thesis: *"Subduction evolution in the Anatolian region: the rise, demise, and fate of the Anadolu Plate"*
- UNIVERSITY OF OSLO** **MSc.GEOLOGY**
Oslo, NO Physics of Geological Processes (PGP) "Fluid Earth" group
2011 – 2012 Thesis: *"Mechanisms of magma transport and emplacement in compressional settings – a case study of Cerro Negro, Neuquén Province, Argentina"*
- AUSTRALIAN NATIONAL UNIVERSITY** **MSc. GEOLOGY**
Canberra, AU Exchange student, Research School of Earth Sciences (RSES)
2011 Coursework Solid Earth Geology & Geophysics
- UNIVERSITY OF BONN** **BSc. GEOSCIENCES**
Bonn, DE Steinmann-Institute, Structural geology group
2007 – 2010 Thesis: *"Tectono-metamorphic evolution of the East Pirin Mountains, Rhodope, Bulgaria"*

COMPETENCES & EXPERIENCE

- UTRECHT UNIVERSITY** Post-doctoral researcher, Department of Earth Sciences
Utrecht, NL *"Kinematic and tomographic restoration of double subduction in the Neotethys"*
2017 - present
- UTRECHT UNIVERSITY** PhD candidate and teaching assistant, Department of Earth Sciences
Utrecht, NL MSc. courses: *"Dynamics of basins and orogens"* and *"Structural analysis of deformed rocks"*, BSc. / MSc. field courses in the Pyrenees and Ardennes
2013 – 2017
- UNIVERSITY OF OSLO** Laboratory assistant geochronology laboratory, Department of Geoscience
Oslo, NO Tasks: sample separation, SEM analysis, isotope geochemistry of
2012 – 2013 metamorphic/magmatic samples from the Norwegian Caledonides and detrital samples from the Norwegian continental shelf
- UNIVERSITY OF OSLO** Intern, Norwegian Centre of Excellence "Physics of Geological Processes" (PGP)
Oslo, NO Tasks: preparation and execution of a field campaign to the Patagonian Andes
2011
- UNIVERSITY OF BONN** Teaching assistant, Steinmann-Institute
Bonn, DE BSc. courses: *"Sedimentology"* and *"Advanced structural geology"*, field mapping
2009 – 2011 courses in the Lodève Basin (FR) and Cycladic islands (GR)

- 2009 – 2011** Laboratory assistant, Steinmann-Institute
Tasks: TOC, XRF, XRD analyses, description of cores of ICPD Lake Van Drilling Project
- 2008 – 2010** Teaching assistant, Language Learning Centre
English in the Natural Sciences (Level B2+)
- CSIRO AUSTRALIA** Intern, Earth Science and Resource Engineering
Kensington, AU
2011
Tasks: thin section analysis, SEM and EMP analyses, building database
- GEO-FORSCHUNGS-
ZENTRUM (GFZ)** Intern, section 4.4: Sedimentary basins
Potsdam, DE
2009
Tasks: GIS-based visualization of geological maps, seismic interpretation of the Kwanza Basin (offshore Angola) using Petrel software

SKILLS

- Fieldwork** 42 weeks total field research (mapping and sampling) in remote regions of Argentina, Bulgaria, Greece, Turkey, Norway, 8 weeks of field teaching (BSc. and MSc. level)
- Laboratory** Regular user of paleomagnetic laboratory, University of Utrecht, (since 2013)

Regular visitor at U-Pb ID-TIMS geochronology laboratory, University of Oslo, (since 2010)
- Computing** Operating System: OSX, Windows, GIS: QGIS, ArcMap, Modelling: GPlates, Theriak Domino, Illustration: Adobe series, Inkscape, Other: Office, LaTeX
- Languages** German (native), English (proficient), Turkish (proficient)

AWARDS & SCHOLARSHIPS

- 2017 Research Project Grant (BAP-03) from the Karadeniz Technical University, Turkey
“Miocene structural and stratigraphic evolution of the eastern Sivas Basin“(co-PI)
- 2016 Poster Award (1st prize) Structural Geology & Tectonics TSK16 symposium Bonn, DE
- 2009 – 2013 Scholarship of the German student support Foundation
- 2011 ERASMUS placement scholarship at PGP, Oslo, NO

Commonwealth Scientific and Industrial Research Organisation (CSIRO) scholarship, AU

Student exchange scholarship to spend one semester at Australian National University, Canberra, AU
- 2010 German Academic Exchange Service (DAAD) support for fieldwork

EXTRA-CURRICULAR ACTIVITIES

- Geological fieldwork organization/supervision: *Cyprus* (2017), *Turkey* (2013-2016), *Ardennes* (2015), *Pyrenees* (2014), *Cyclades*, (2011-2014), *Neuquén Andes* (2011-2012), *Lodève basin* (2011)
- “*Rock Magnetism*” Summer School, Institute for Rock Magnetism (IRM), University of Minnesota, US, 06/2015

- “Structural modelling and analysis using ‘move’ software” Training, Glasgow, UK, 02/2014
- “Zircon: a key mineral for dating and tracking geological processes”, PhD school, Pavia, IT, 09/2013
- “Dynamics and Structures of the Tethyan realm: Collisions and Back-arcs from Mediterranean to the Himalayas” session co-convenor, EGU 2018
- “Making the Mediterranean: from mantle to surface processes” session co-convenor, AGU 2016
- Lead-organizer of “Tectonic evolution of the Anatolian Plateau since the Cretaceous” geologic field excursion to Turkey for 10 days, 15 researchers and international collaborators (08/2016)
- Supervision of two BSc. (2013, 2015) and one MSc. project (2014) in Earth Sciences, University of Utrecht, NL
- Volunteer at the Mineralogical Museum Bonn, University of Bonn, DE, (2009-2011)
- Elected student representative (Geology), University of Bonn, DE, (2009)

PUBLICATIONS

1. **Derya Gürer**, Alexis Plunder, Frederik Kirst, Stefan M. Schmid, S.M., Douwe J. J. van Hinsbergen: *A long-lived Late Cretaceous-Early Eocene extensional province in Anatolia? Structural evidence from the Ivriz Detachment, southern central Turkey*, Earth and Planetary Science Letters, 01/**2018**
2. **Derya Gürer**, Douwe J. J. van Hinsbergen, Liviu Matenco, Fernando Corfu, Antonio Cascella: *Kinematics of a former oceanic plate of the Neotethys revealed by deformation in the Ulukışla basin (Turkey)*. Tectonics 09/**2016**
3. Douwe J. J. van Hinsbergen, Marco Maffione, Alexis Plunder, Nuretdin Kaymakci, Morgan Ganerød, Bart W.H. Hendriks, Fernando Corfu, **Derya Gürer**, et al.: *Tectonic evolution and paleogeography of the Kırşehir Block and the Central Anatolian Ophiolites, Turkey*. Tectonics 03/**2016**
4. Douwe J. J. van Hinsbergen, Kalijn Peters, Marco Maffione, Wim Spakman, Carl Guilmette, Cedric Thieulot, Oliver Plümper, **Derya Gürer** et al.: *Dynamics of intraoceanic subduction initiation: 2. Suprasubduction zone ophiolite formation and metamorphic sole exhumation in context of absolute plate motions*. Geochemistry Geophysics Geosystems 05/**2015**
5. **Derya Gürer**, Olivier Galland, Fernando Corfu, Héctor A. Leanza, Caroline Sassier: *Structure and evolution of volcanic plumbing systems in fold-and-thrust belts: A case study of the Cerro Negro de Tricao Malal, Neuquén Province, Argentina*. Geological Society of America Bulletin 09/**2015**;
6. Stephen J. Barnes, Belinda Godel, **Derya Gürer**, James M. Brenan, Jesse Robertson, David Paterson: *Sulfide-Olivine Fe-Ni Exchange and the Origin of Anomalously Ni Rich Magmatic Sulfides*. Economic Geology 12/**2013**
7. Bélinda Godel, Stephen J. Barnes, **Derya Gürer**, Peter Austin, Marco L. Fiorentini: *Chromite in komatiites: 3D morphologies with implications for crystallization mechanisms*. Contributions to Mineralogy and Petrology 01/**2013**
8. **Derya Gürer**, Douwe J.J. van Hinsbergen, Murat Özkaptan, Cor G. Langereis, Antonio Cascella, Iverna Creton, Mathijs Koymans: *Paleomagnetic constraints on Cenozoic vertical-axis rotations in the Central and Eastern Taurides, Turkey, in revision* (07/2017, Solid Earth Discussions)
9. **Derya Gürer**, Douwe J.J. van Hinsbergen: *Diachronous demise of the Neotethys Ocean as driver for non-cylindrical orogenesis, under review* (07/2017, Tectonophysics)
10. Annique van der Boon, Douwe J.J. van Hinsbergen, Mahnaz Rezaeian, **Derya Gürer**, Maryam Honarmand, Daniel Pastor-Galán, Wout Krijgsman, Cor G. Langereis: *Quantifying Arabia-Eurasia convergence accommodated in the Greater Caucasus, in press* (06/2017, Earth and Planetary Science Letters)

CONFERENCE PROCEEDINGS (selected)

1. **Derya Gürer**: *The geological consequences of double same dip subduction systems*, EGU 2018 (solicited talk)
2. **Derya Gürer**: *Reconstructing the evolution of Neotethyan double subduction from the tectonic record of Anatolia*. Dorothy Hill Women in Earth Sciences Symposium, University of Queensland, Brisbane, Australia (invited keynote)
3. Douwe J.J. van Hinsbergen, **Derya Gürer**: *Diachronous demise of the Neotethys Ocean as driver for non-cylindrical orogenesis*. AGU 2017, (solicited talk)
4. **Derya Gürer**, Douwe van Hinsbergen: *Kinematic reconstruction of Anatolia since the Cretaceous*. EGU 2017 (talk)
5. **Derya Gürer**, Michael H. Darin, Douwe J. J. van Hinsbergen, Paul J. Umhoefer: *Cenozoic Structural and Stratigraphic Evolution of the Ulukisla and Sivas Basins (Central and Eastern Turkey)*. EGU 2017 (poster)
6. Kalijn Peters, Douwe J. J. van Hinsbergen, Fernando Corfu, **Derya Gürer**, Fraukje M. Brouwer, Herman L.M. van Roermund: *Subduction initiation close to the continental margin? Implications from U-Pb zircon geochronology of the Pınarbaşı metamorphic sole, central Turkey*. EGU 2017 (poster)
7. **Derya Gürer**, Alexis Plunder, Frederik Kirst, Fernando Corfu, Stefan M. Schmid, Douwe J.J. van Hinsbergen: *A long-lived extensional back-arc in Anatolia?* AGU 2016 (poster)
8. Annique van der Boon, **Derya Gürer**, Douwe J.J. van Hinsbergen, Daniel Pastor-Galán, Mahnaz Rezaeian, Maryam Honarmand, Wout Krijgsman, Cor G. Langereis: *Constraining Convergence in the Greater Caucasus Since the Eocene Through Restoring the Pontide-Lesser Caucasus-West Iranian Orocline*. AGU 2016, (poster)
9. **Derya Gürer**, Olivier Galland, Fernando Corfu, Héctor A. Leanza, Caroline Sassier: *The structure and evolution of volcanic plumbing systems in fold-and-thrust belts: a case study of a Miocene intrusive complex, Neuquén Andes, Argentina*. AGU 2015, (talk)
10. **Derya Gürer**, Douwe J.J. van Hinsbergen, Liviu Matenco, Fernando Corfu, Murat Özkaptan, Cor G. Langereis: *Subduction zone configuration of Central and Eastern Anatolia since the Late Cretaceous: insights from sedimentary basins in the Neotethyan suture zone*. AGU 2015 (poster)
11. **Derya Gürer**, Douwe J.J. van Hinsbergen, Liviu Matenco, Fernando Corfu: *Late Cretaceous to recent tectonic evolution of the Ulukisla Basin (Southern Central Anatolia)*. EGU 2014 (poster)
12. **Derya Gürer**, Olivier Galland, Héctor A. Leanza, Caroline Sassier, Peter R. Cobbold, Eduardo A. Rossello: *The structure and evolution of magmatic complexes in fold-and-thrust belts - a case study of Cerro Negro, Neuquén Province, Argentina*. EGU 2012 (poster)

INVITED TALKS

- *EarthByte Seminar* on “Reconstructing lost oceans from the surface geological record of Anatolia”, Research School of Geosciences, The University of Sydney, 12/2017
- *Earth Dynamics Seminar* on “Eastern Mediterranean geodynamics - An early bird of extension from Turkey”, Research School of Earth Sciences, Australian National University, 12/2017
- *Tectonics seminar* on “Subduction evolution in the Anatolian region: the rise, demise, and fate of the Anadolu Plate”, Department of Earth Sciences, Free University Berlin, 10/2017
- “MedMeet - Geodynamics of the Alpine-Mediterranean Area” Symposium, Budapest, 11/2016
- “Continental Dynamics - Central Anatolian Tectonics (CD-CAT)” workshop, TR, 06/2016
- “Endogene Prozesse” seminar, Steinmann-Institute, University of Bonn, 01/2016
- “Continental Dynamics - Central Anatolian Tectonics (CD-CAT)” seminar, University of Minnesota, 06/2015
- “Tectonics seminar”, Department of Earth Sciences, Utrecht University, 12/2012