

# Curriculum Vitae

## Dr. Eline Le Breton

MSc and PhD in Geology

*Docteur Agrégée en Sciences de la Terre*

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Phone: +49 30 838 70109

Birth: 03.16.1983, Caen, France

Nationality: French

Married, 2 children (born 2014, 2017)

## Research Interests

- Plate tectonics and kinematic reconstructions, geodynamics, structural geology
- Interaction of mantle, crust and surface motions during lithospheric extension and orogenesis

## Professional Experience

Oct. 2012 – <i>currently</i>	<b>Postdoctoral Research Associate and Lecturer</b> (Wissenschaftliche Mitarbeiterin), Freie Universität Berlin, Germany
Oct. 2011 – Aug. 2012	<b>Research and Teaching Assistant</b> (ATER), University of Rennes 1, France
Oct. 2008 – Sept. 2011	<b>Teaching Assistant</b> (Monitrice), University of Rennes 1, France
Feb. – July 2010	<b>Internship at Chevron</b> , Houston, Texas Seismic interpretation and numerical modelling
July – August 2005	<b>Research internship</b> in the Remote Sensing Group, Technische Universität Bergakademie Freiberg, Germany Topic: <i>Neotectonic in Tibet and Pamirs, satellite images and river profiles analyses</i>

## University Education

Oct. 2008 – March 2012	<b>PhD in tectonics</b> under the supervision of P.R. Cobbold, University of Rennes 1, France Topic: <i>Differential spreading along the NE Atlantic ridge system and post-breakup deformation of the adjacent continental margins</i>
Sept. 2007 – June 2008	<b>MSc of Geology</b> , University of Rennes 1, France MSc Thesis: <i>Post-glacial rebound of Iceland during the Holocene</i>
Sept. 2006 – July 2007	<b>Agrégation SVTU</b> , Highest National Teacher Competitive Examination in Life, Earth and Universe Sciences; Rank: 34 <sup>th</sup> of France (out of 1489 candidates)
Sept. 2005 – July 2006	<b>Capes SVT</b> , National Teacher Competitive Examination in Life and Earth Sciences Rank: 5 <sup>th</sup> of France (out of 3770 candidates)
Sept. 2004 – June 2005	<b>Maîtrise SVT</b> , 1 <sup>st</sup> year MSc of Life and Earth Sciences, University of Rennes 1, France
Sept. 2003 – June 2004	<b>ERASMUS</b> Student, University of Iceland, Reykjavik
Sept. 2000 – June 2003	<b>Licence SVT</b> , BSc of Life and Earth Sciences, University of Caen, France

## Publications with peer review process

5. **Le Breton E.**, M.R. Handy, G. Molli and K. Ustaszewski (**in press**). Post-20 Ma motion of the Adriatic plate – new constraints from surrounding orogens and implications for crust-mantle decoupling, *Tectonics*, doi:10.1002/2016TC004443.
4. Mora, J.A., O. Oncken, **E. Le Breton**, M. Ibáñez-Mejía, C. Faccenna, G. Veloza, V. Vélez, M. de Freitas and A. Mesa (**2017**). Linking Late Cretaceous to Eocene Tectono-stratigraphy of the San Jacinto fold belt of NW Colombia with Caribbean plateau collision and flat subduction, *Tectonics*, 36, doi:10.1002/2017TC004612.
3. **Le Breton E.**, P.R. Cobbold and A. Zanella (**2013**). Cenozoic reactivation of the Great Glen Fault, Scotland: Additional Evidence and Possible Causes. *Journal of the Geological Society, London*, 170, 403-415, doi:10.1144/jgs2012-067.
2. **Le Breton E.**, P.R. Cobbold, O. Dauteuil and G. Lewis (**2012**). Variation in amount and direction of sea-floor spreading along the North East Atlantic Ocean and resulting deformation of the continental margin of North West Europe. *Tectonics*, 31, TC5006, doi:10.1029/2011TC003087.
1. **Le Breton E.**, O. Dauteuil and G. Biessy (**2010**). Post-glacial rebound of Iceland during the Holocene. *Journal of the Geological Society, London*, 167, 417-432, doi:10.1144/0016-76492008-126.

## Monograph

- Le Breton E. (2012)**. Differential spreading along the NE Atlantic ridge system and post-breakup deformation of the adjacent continental margins. *Mémoires de Géosciences Rennes*, 141, ISBN 2-914375-82-4.

## Conference abstracts

22. Navabpour, P., J. Kley, **E. Le Breton**, D.J.J. van Hinsbergen and K. Ustaszewski (**2017**). Does intraplate brittle deformation indicate far-field stress signals? A case study of Central Europe. Geophysical Research Abstracts, Vol. 19, EGU2017-4170, EGU General Assembly 2017.
21. **E. Le Breton**, M.R. Handy, G. Molli and K. Ustaszewski (**2017**). New constraints on Neogene counter-clockwise rotation of Adria relative to Europe. Geophysical Research Abstracts, Vol. 19, EGU2017-15437, EGU General Assembly 2017.
20. Ustaszewski K., **E. Le Breton**, P. Balling, M.R. Handy, G. Molli and B. Tomljenović (**2017**). One microplate – three orogens: alps, Dinarides, Apennines and the role of the Adriatic plate. Geophysical Research Abstracts, Vol. 19, EGU2017-16444, EGU General Assembly 2017.
19. Handy M.R., E. Kissling, W. Spakman, K. Ustaszewski, **E. Le Breton** and J. Giese (**2017**). Crust-mantle decoupling in the Alps, Carpathians, Dinarides and Hellenides – the next targets of AlpArray? Geophysical Research Abstracts, Vol. 19, EGU2017-18044, EGU General Assembly 2017.
18. **E. Le Breton** and M.R. Handy (**2016**). New constraints on post-20 Ma counter-clockwise rotation of Adria relative to Europe. GeoTirol 2016, Innsbruck, Austria.
17. Handy M.R., B. Fügenschuh, J. Giese, **E. Le Breton**, B. Muceku, K. Onuzi, J. Pleuger, S.M. Schmid and K. Ustaszewski (**2015**). Orogen-parallel and -normal extension at the Dinarides-Hellenides junction during clockwise rotation and radial expansion of the retreating Hellenic arc-trench system. AGU 2015-T23F-06, 2015 AGU Fall Meeting.

16. **Le Breton E.**, M.R. Handy and K. Ustaszewski (2015). Balancing shortening and extension around the Adriatic Plate to constrain its independent motion and driving forces since Late Cretaceous time. AGU 2015-T13B-2983, 2015 AGU Fall Meeting.
15. Handy M.R., S. Cionoiu, J. Giese, P. Groß, **E. Le Breton**, K. Onuzi, J. Pleuger, S.M. Schmid, K. Ustaszewski and S. Zertani (2015): Overlapping orogen-parallel and orogen-normal extension (Northern Albania) related to ongoing clockwise rotation at the junction of the Dinarides and Hellenides. GeoBerlin 2015, Berlin, Germany.
14. **Le Breton E.**, M.R. Handy and K. Ustaszewski (2015). Kinematic reconstructions and possible driving forces of the Adriatic microplate. GeoBerlin 2015, Berlin, Germany.
13. Groß P., S. Zertani, S. Cionoiu, C. Deutsch, S. Evseev, D. Wanneck, J. Giese, **E. Le Breton**, M.R. Handy, K. Onuzi, J. Pleuger, K. Ustaszewski, 2014. A new 1:10,000 geological map of the Skutari-Pec Normal Fault and surroundings, northern Albania – evidence of orogen-parallel extension. XX Congress of the Carpathian Balkan geological Association, CBGA 2014, Tirana, Albania.
12. Handy M.R., S.R. Schmid, **E. Le Breton**, J. Giese, K. Onuzi, J. Pleuger, K. Ustaszewski, S. Cionoiu, C. Deutsch, S. Evseev, P. Groß, D. Wanneck, S. Zertani, 2014. Tectonics of rotation at the western end of the Skutari-Pec Normal Fault (SPNF). XX Congress of the Carpathian Balkan geological Association, CBGA 2014, Tirana, Albania.
11. **Le Breton E.** and M.R. Handy (2014). Kinematic reconstructions of the Western Mediterranean area – a key to understanding the independent motion of the Adriatic microplate. 15th Symposium on Tectonics, Structural Geology and Geology of Crystalline Rocks, TSK15 Potsdam 2014.
10. Wanneck D., P. Groß, S. Cionoiu, C. Deutsch, S. Evseev, S. Zertani, J. Giese, **E. Le Breton**, M.R. Handy, K. Onuzi, J. Pleuger and K. Ustaszewski (2014). A new 1:10,000 geological map of the Skutari-Pec Fault and surroundings, northern Albania – evidence of orogen-parallel extension. 15th Symposium on Tectonics, Structural Geology and Geology of Crystalline Rocks, TSK15 Potsdam 2014.
9. Zertani S., S. Cionoiu, C. Deutsch, S. Evseev, P. Groß, D. Wanneck, M.R. Handy, K. Ustaszewski, J. Giese, **E. Le Breton**, J. Pleuger and K. Onuzi (2014). Structure and Kinematics of the Skutari-Pec-Fault in northern Albania. 15th Symposium on Tectonics, Structural Geology and Geology of Crystalline Rocks, TSK15 Potsdam 2014.
8. **Le Breton E.** and M.R. Handy (2013). Evaluating kinematic reconstructions of deformable and independent microplates - the example of the Western Mediterranean – Alpine system. 2013 AGU Fall Meeting.
7. **Le Breton E.**, P.R. Cobbold and O. Dauteuil (2012). Differential sea-floor spreading along the NE Atlantic ridge system and resulting deformation of the NW European Margin. Onshore-Offshore relationship on the North Atlantic Margin, Trondheim, 2012.
6. **Le Breton E.**, P.R. Cobbold and O. Dauteuil (2012). Palinspastic reconstruction of the opening of the NE Atlantic: differential sea-floor spreading and resulting deformation of the NW European Margin. Geophysical Research Abstracts, Vol. 14, EGU2012-7354. EGU General Assembly 2012.
5. **Le Breton E.**, P.R. Cobbold and A. Zanella (2012). Cenozoic right-lateral slip on the Great Glen Fault, Scotland: Additional Evidence and Possible Causes. Geophysical Research Abstracts, Vol. 14, EGU2012-3543-1. EGU General Assembly 2012.
4. **Le Breton E.**, P.R. Cobbold, P. Roperch and O. Dauteuil (2011). Ridge-plume interaction and differential spreading along the northern North Atlantic ridge and resulting Cenozoic compressional deformation of the NE Atlantic margin. Geophysical Research Abstracts, Vol. 13, EGU2011-6001. EGU General Assembly 2011.

3. **Le Breton E.**, P.R. Cobbold, P. Roperch and O. Dauteuil (2010). Differential spreading along the northern North Atlantic ridge and resulting intraplate deformation of the adjacent continental margins. 2010 AGU Fall Meeting.
2. **Le Breton E.**, P.R. Cobbold, P. Roperch and O. Dauteuil (2010). Differential seafloor spreading of the North Atlantic and consequent deformation of adjacent continental margins. Geophysical Research Abstracts, Vol. 12, EGU2010-4132. EGU General Assembly 2010.
1. **Le Breton E.**, O. Dauteuil and G. Biessy (2010). Post-glacial rebound of Iceland during the Holocene. Geophysical Research Abstracts, Vol. 12, EGU2010-3543. EGU General Assembly 2010.

## Grants - Awards

- **DFG Research Grant** (€20,290, third PI, BR 4900/3-1), Giudicarie Project (2017-2020) as part of the German "Mountain Building Processes in 4D" (4D-MB) Priority Programme and European "AlpArray"
- **DFG Research Grant** (€58,650, main PI, BR 4900/2-1), KAPMED Project (2015-2018)
- **PROMOS Travel Grant** (€ 2160), Field Trip in Bretagne, France, Sept. 2016
- **FU Berlin Internal Women's Support Program** (€7000), Oct. 2015 - Oct. 2016
- **DAAD Travel Grant** (€1946), AGU Fall Meeting 2013
- **Student Travel Grant** (\$1000), AGU Fall Meeting 2010
- **Outstanding Student Paper Award** (\$200), Section Geodesy, AGU Fall Meeting 2010

## Teaching

At the Freie Universität Berlin, Germany (since 2012):

- Tectonics of Sedimentary Basins (MSc of Earth Sciences)
- Seminar for current research (MSc of Earth Sciences)
- Introduction to field mapping (BSc of Earth Sciences)
- Field work in the Rheinisches Schiefergebirge, the Erzgebirge and the Armorican Massif (BSc and MSc of Earth Sciences)

At the University of Rennes 1, France (2008-2012):

- Tectonics (MSc of Earth Sciences)
- Magmatism and Volcanology (BSc of Mechanics, Physics and Chemistry)
- Mapping techniques (BSc of Life and Earth Sciences)
- Magmatic Petrology (BSc of Earth Sciences)
- Preparation to CAPES and Agrégation (MSc of Life and Earth Sciences)
- Field work in the Armorican Massif, the Pyrenees and the Montagne Noire (BSc and MSc of Earth Sciences)

## Skills

Languages

French: native  
 English: fluent  
 German: proficient  
 Icelandic: fair

Computing

Operating System: Windows (2000/XP/Vista), OSX, UNIX; Applied knowledge  
GIS: ArcMap; Applied knowledge  
Modelling: GPlates/SeisWorks/Gocad/Move - Fortran/C/SCILAB; Applied knowledge  
Image editing: Adobe series; Applied knowledge  
Statistics & Data management: Origin/KaleidaGraph; Applied knowledge

## Professional Service

2012-currently	Reviewer for <i>Marine and Petroleum Geology</i> , <i>Gondwana Research</i> , <i>International Geology Review</i> and <i>Palaeo-3</i>
2010-currently	Member of the American Geophysical Union (AGU), European Geosciences Union (EGU) and Deutsche Geologische Gesellschaft - Geologische Veriningung (DGGV)
Sept. 2007 – Sept. 2008	Elected President of the “Geocontact” Student Association, Rennes (organisation of seminars and excursions, budget management of the association)
Sept. 2006 – July 2007	Elected Secretary of the "Atout Prépa" Student Association, Rennes (preparation for oral and written National Teacher Competitive Examinations, CAPES and Agrégation, of Life and Earth Sciences, budget management of the association)