

## CURRICULUM VITAE - ROB GOVERS

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### Education:

Utrecht University	Geophysics	M.Sc.	1988	
Utrecht University	Geophysics	Ph.D.	1993	(M.J.R. Wortel, N.J. Vlaar)

## Research

### Expertise

Geodynamics of plate boundary regions, surface expressions of mantle processes, seismic cycle from Global Positioning System and other geodetic techniques, rheology and large-scale tectonics. Particular regions of interest: active margins of the North American continent, the Caribbean region, the Mediterranean-Paratethys region. Develop and use finite element and finite difference software for the solution of partial differential equations, and for visualization of the numerical solutions.

### Appointments:

2009-	Associate Professor of Geophysics, Faculty of Geosciences, Utrecht University, Netherlands
1995-2009	Assistant Professor of Geophysics, Faculty of Geosciences, Utrecht University, Netherlands [tenure granted 1996]
1993-1995	Postdoctoral researcher, Department of Geosciences, The Pennsylvania State University, University Park, PA
1993	Postdoctoral researcher, Utrecht University, Netherlands

### Honors:

2014	Fellow of the Geological Society of America
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### Research articles (peer reviewed, [H-index=26](#), 2369 citations)

59. **Govers, R.**, Furlong, K.P., van de Wiel, L., Herman, M.W., and T. Broerse, The geodetic signature of the earthquake cycle at subduction zones: model constraints on the deep processes, submitted to *Rev. Geophys.*, August 2017.
58. Nijholt, N. **Govers, R.**, and Wortel, R., On the forces that drive and resist deformation of the south-central Mediterranean: a mechanical model study, submitted to *EPSL*, October 2017.
57. Roda, M., Marketos, G., Westerweel, and **R. Govers**, Morphological expressions of crater infill collapse: model simulations of Chaotic Terrains on Mars, in press in *G-cubed*, doi: 10.1002/2017GC006933, 2017.
56. Özbakır, A.D., **R. Govers**, and M.J.R. Wortel, Active faults in the Anatolian-Aegean plate boundary region with Nubia, *Turkish Journal of Earth Sciences*, doi: 10.3906/yer-1603-4, 2017 ([full text](#)).
55. **Govers, R.**, and A. Fichtner, Signature of slab fragmentation beneath Anatolia from full-waveform tomography, *Earth and Planetary Science Letters*, 450,10-19. doi:10.1016/j.epsl.2016.06.014, 2016.
54. Marketos, G., C.J. Spiers, and **R. Govers**, Impact of rocksalt creep law choice on subsidence calculations above hydrocarbon reservoirs overlain by evaporite caprocks, 121(6), 4249-4267, doi: 10.1002/2016JB012892, 2016.
53. George, O., R. Malservisi, **R. Govers**, C. Connor, and L. Connor, Is uplift of volcano clusters in the Tohoku Volcanic Arc, Japan driven by (sub)crustal ponding? A geodynamic modeling study, *Journal of Geophysical Research*, 121(6), 4780-4796, doi: 10.1002/2016JB012833, 2016.
52. Polonia A., Torelli L., Artoni A., Faccenna C., Ferranti L., Gasperini L., **Govers R.**, Klaeschen D., Monaco C., Neri G., Nijholt N., Orecchio B., Wortel R., The Ionian and Alfeo-Etna fault zones: new

- segments of an evolving plate boundary in the central Mediterranean Sea?, *Tectonophysics*, 675, 69-90, doi:10.1016/j.tecto.2016.03.016, 2016
51. Roda, M., M. Kleinhans, T.E. Zegers, and **R. Govers**, Origin of circular collapsed landforms in the Chryse region of Mars, *Icarus*, 265, doi:10.1016/j.icarus.2015.10.020, 2016.
  50. Nijholt, N., and **R. Govers**, On the evolution of Subduction-Transform Edge Propagators (STEPS), *JGR-Solid Earth*, doi: 10.1002/2015JB012202, 2015.
  49. Flecker, R., Krijgsman, W., Capella, W., de Castro Martins, C., Demitrieva, E., Mayser, J.P., Marzocchi, A., Modestu, S., Ochoa Lozano, D., Simon, D., Tulbure, M., van den Berg, B., van der Schee, M., de Lange, G., Ellam, R., **Govers, R.**, Gutjahr, M., Hilgen, F., Kouwenhoven, T., Lofi, J., Meijer, P.Th., Sierro, F.J., Bachiri, N., Barboun, N., Chakor Alami, A., Chacon, B., Flores, J.A., Gregory, J., Howard, J., Lunt, D., Ochoa, M., Pancost, R., Vincent, S., Zakaria Yousfi, M., Evolution of the Late Miocene Mediterranean-Atlantic gateways and their impact on regional and global environmental change, *Earth Science Reviews*, 150, 365-392, doi:10.1016/j.earscirev.2015.08.007, 2015.
  48. Marketos, G., **R. Govers**, and C. Spiers, Ground motions induced by a producing hydrocarbon reservoir that is overlain by a viscoelastic rocksalt layer: A numerical model, *Geophysical Journal International*, 203(1), 198-212, doi:10.1093/gji/ggv294, 2015.
  47. Broerse, T., R. Riva, W. Simons, **R. Govers**, and B. Vermeersen, Postseismic GRACE and GPS observations indicate a rheology contrast above and below the Sumatra slab, *Journal of Geophysical Research - Solid Earth*, 120(7), 5343-5361, doi: 10.1002/2015JB011951, 2015.
  46. Marra, W., E. Hauber, S. McLelland, B. Murphy, D. Parsons, S. Conway, M. Roda, **R. Govers**, and M. Kleinhans, Pressurized groundwater outflow experiments and numerical modeling for outflow channels on Mars, *JGR-planets*, 119(12), 2668-2693, doi: 10.1002/2014JE004701, 2014.
  45. Bartol, J. and **R. Govers**, A single cause for uplift of the Central and Eastern Anatolian plateau? *Tectonophysics*, 637, 116-136, doi: 10.1016/j.tecto.2014.10.002, 2014.
  44. Van Benthem, S., **R. Govers**, and R. Wortel, What drives microplate motion and deformation in the northeastern Caribbean plate boundary region? *Tectonics*, 33(5), 850-873, doi:10.1002/2013TC003402, 2014.
  43. Roveri, M., Flecker, R., Krijgsman, W., Lofi, J., Lugli, S., Manzi, V., Sierro, F.J., Bertini A., Camerlenghi, A., DeLange, G., Hilgen, F.J., Hübscher, C., **Govers, R.**, Meijer, P.Th., Stoica, M., The Messinian Salinity Crisis: past and future of a great challenge for marine sciences, *Marine Geology*, 352, 25-58, doi:10.1016/j.margeo.2014.02.002, 2014.
  42. Warners-Ruckstuhl, K.N., **R. Govers**, and M.J.R. Wortel, Tethyan collision forces and the stress field of the Eurasian plate, *Geophys. J. Int.*, 195, 1-15, doi: 10.1093/gji/ggt219, 2013.
  41. Özbakır, A.D., C. Şengör, R. Wortel, and **R. Govers**, The Pliny-Strabo trench region: a large shear zone resulting from slab tearing, *Earth and Planetary Science Letters*, 375, 188-195, doi:10.1016/j.epsl.2013.05.025, 2013.
  40. Plattner, C., F. Amelung, S. Baker, **R. Govers**, M. Poland, The role of viscous magma mush spreading for volcanic flank motion at Kīlauea Volcano, Hawai'i, *Journal of Geophysical Research: Solid Earth*, 118(5), 2474-2487, doi:10.1002/jgrb.50194, 2013.
  39. Van Benthem, S., **R. Govers**, W. Spakman, M.J.R. Wortel, Tectonic evolution and mantle structure of the Caribbean, *Journal of Geophysical Research B: Solid Earth*, 118(6), 3019-3036, doi: 10.1002/jgrb.5023, 2013.
  38. Warners-Ruckstuhl, K.N., **R. Govers**, and M.J.R. Wortel, Lithosphere-mantle coupling and the dynamics of the Eurasian plate, *Geophys. J. Int.*, 189(3), 1253-1276, doi: 10.1111/j.1365-246X.2012.05427.x, 2012.
  37. Baes, M., **R. Govers**, and M.J.R. Wortel, Switching between alternative responses of the lithosphere to continental collision, *Geophys. J. Int.*, 187, 1151-1174 doi: 10.1111/j.1365-246X.2011.05236.x, 2011.
  36. Baes, M., **R. Govers** and M.J.R. Wortel, Subduction initiation along a STEP fault: Insights from numerical models, *Geophys. J. Int.*, 184(3), 991-1008, doi: 10.1111/j.1365-246X.2010.04896.x, 2011.
  35. Warners-Ruckstuhl, K.N., P.Th. Meijer, **R. Govers**, and M.J.R. Wortel, A lithosphere-dynamics constraint on mantle flow: analysis of the Eurasian plate, *Geophys. Res. Lett.*, 37, L18308, doi: 10.1029/2010GL044431, 2010.
  34. van Benthem, S., and **R. Govers**, The Caribbean plate: pulled, pushed or dragged? *Journal of Geophysical Research B*, 115, B10409, doi:10.1029/2009JB006950, 2010.
  33. Plattner, C., R. Malservisi, K.P. Furlong and **R. Govers**, Development of the Eastern California Shear Zone - Walker Lane belt: Effect of pre-existing weakness in the Basin and Range, *Tectonophysics*, 485(1-4), 78-84, doi: 10.1016/j.tecto.2009.11.021, 2010.

32. Bartol, J., and **R. Govers**, Flexure due to the Messinian-Pontian sea level drop in the Black Sea, *G3 Geochemistry Geophysics Geosystems*, 10, Q10013, doi:10.1029/2009GC002672, 2009.
31. Plattner, C., R. Malservisi, and **R. Govers**, On the plate boundary forces that drive and resist Baja California motion, *Geology*, 37(4), 359-362, 2009.
30. LaFemina, P., T. Dixon, **R. Govers**, E. Norabuena, H. Turner, A. Saballos, G. Mattioli, M. Protti, and W. Strauch, Forearc motion and Cocos Ridge collision in Central America, doi: 10.1029/2008GC002181, *Geochemistry Geophysics Geosystems*, 2009.
29. **Govers, R.**, Choking the Mediterranean to dehydration: the Messinian Salinity Crisis, *Geology*, 37(2), 167-170, 2009.
28. **Govers, R.**, P. Th. Meijer, and W. Krijgsman, Regional isostatic response to Messinian Salinity Crisis events, *Tectonophysics*, 463(1-4), doi: 10.1016/j.tecto.2008.09.026, 2009.
27. Van Hinsbergen, D.J.J., Edwards, M.A., and **Govers, R.**, Geodynamics of collision and collapse at the Africa-Arabia-Eurasia subduction zone - an introduction, in: Van Hinsbergen, D.J., Edwards, M.A., and Govers, R. (Eds.), *Collision and Collapse at the Africa – Arabia – Eurasia Subduction Zone*, pp.1-7, *Geological Society, London, Special Publications*, 311, 2009.
26. Wortel, R., **R. Govers**, and W. Spakman, Continental collision and the STEP-wise evolution of convergent plate boundaries: from structure to dynamics, in: S. Lallemand and F. Funiciello (Eds.), *Subduction Zone Geodynamics*, pp. 47-59, doi: 10.1007/978-3-540-87974-9, 2009.
25. Riva, R., **Govers, R.**, Relating viscosities from postseismic relaxation to a realistic viscosity structure for the lithosphere. *Geophysical Journal International* 176(2), 614–624, 10.1111/j.1365-246X.2008.04004.x, 2009.
24. De Franco, **R.**, **Govers, R.**, and R. Wortel, Nature of the plate contact and subduction zone diversity, *Earth and Planetary Science Letters*, 271(1-4), 245-253, doi: 10.1016/j.epsl.2008.04.019, 2008.
23. De Franco, **R.**, **Govers, R.**, and R. Wortel, Dynamics of continental collision: influence of the plate contact, *Geophysical Journal International*, 174(3), 1101-1120, doi: 10.1111/j.1365-246X.2008.03857.x, 2008.
22. De Franco, **R.**, **Govers, R.** and Wortel, R., 2007. Numerical comparison of different convergent plate contacts: subduction channel and subduction fault, *Geophysical Journal International*, 171(1), 435-450, doi: 10.1111/j.1365-246X.2006.03498.x.
21. Schmalzle, G., Dixon, T., Malservisi, R. and **Govers, R.**, 2006. Strain Accumulation across the Carrizo Segment of the San Andreas Fault, California: Impact of Laterally Varying Crustal Properties, *Journal of Geophysical Research*, 111(B05403).
20. **Govers, R.** and Wortel, M.J.R., Lithosphere tearing at STEP faults: dynamic consequences of slab edges, *Earth and Planetary Science Letters*, 236(1-2), 505-523, 10.1016/j.epsl.2005.03.022, 2005.
19. Fernandes, R.M.S., B.A.C. Ambrosius, R. Noomen, L. Bastos, M. J. R. Wortel, W. Spakman, and **R. Govers**, The relative motion between Africa and Eurasia as derived from ITRF2000 and GPS data, *Geophysical Research Letters*, 30(16), doi: 10.1029/2003GL017089, 2003
18. Buitter, S., **Govers, R.** and Wortel, R., 2002. Two-dimensional simulations of surface deformation caused by slab detachment, *Tectonophysics*, 354(3-4): 195-210.
17. van Wijk, J.W., **Govers, R.** and Furlong, K.P., 2001. 3-D thermal modeling of the southern California upper mantle; the tectonic history of microplates. *Earth and Planetary Science Letters*, 186: 175-186.
16. **Govers, R.** and Meijer, P.T., 2001. On the dynamics of the Juan de Fuca plate. *Earth and Planetary Science Letters*, 189: 115-131.
15. Buitter, S., **Govers, R.** and Wortel, R., 2001. A modelling study of vertical surface displacements at convergent plate margins. *Geophys. J. Int.*, 147: 415-427.
14. Kreemer, C., Holt, W.E., Goes, S. and **Govers, R.**, 2000. Active deformation in Eastern Indonesia and the Philippines from GPS and seismicity data. *Journal Geophysical Research*, 105: 663-680.
13. Goes, S., Loohuis, J.P., Wortel, M.J.R. and **Govers, R.**, 2000. The effect of plate stresses and shallow mantle temperatures on tectonics of northwestern Europe. *Global and Planetary Change*, 27: 23-28.
12. Goes, S., **Govers, R.** and Vacher, P., 2000. Shallow mantle temperatures under Europe from P and S wave tomography. *Journal Geophysical Research*, 105: 11,153-11,169.
11. **Govers, R.** and Wortel, M.J.R., 1999. Some remarks on the relation between vertical motions of the lithosphere during extension and the "necking depth" parameter inferred from kinematic modeling studies. *Journal Geophysical Research*, 104: 23,245-23,254.
10. Furlong, K.P. and **Govers, R.**, 1999. Ephemeral crustal thickening at a triple junction: the Mendocino crustal conveyor. *Geology*, 27: 127-130.
9. Kreemer, C., **Govers, R.**, Furlong, K.P. and Holt, W.E., 1998. Plate boundary deformation between the Pacific and North America in the Explorer region. *Tectonophysics*, 293: 225-238.

8. Buiter, S.J.H., Wortel, M.J.R. and **Govers, R.**, 1998. The role of subduction in the evolution of the Apennines foreland basin. *Tectonophysics*, 296: 249-268.
7. Prims, J., Furlong, K.P., Rohr, K.M.M. and **Govers, R.**, 1997. Lithospheric structure along the Queen Charlotte margin in western Canada: constraints from flexural modeling. *Geo-Marine Letters*, 17: 94-99.
6. Meijer, P.T., **Govers, R.** and Wortel, M.J.R., 1997. Forces controlling the present-day state of stress in the Andes. *Earth and Planetary Science Letters*, 148: 157-170.
5. Goes, S., **Govers, R.**, Schwartz, S. and Furlong, K., 1997. Three-dimensional thermal modeling for the Mendocino Triple Junction area. *Earth and Planetary Science Letters*, 148: 45-57.
4. **Govers, R.** and Wortel, M.J.R., 1995. Extension of stable continental lithosphere and the initiation of lithosphere scale faults. *Tectonics*, 14(4): 1041-1055.
3. **Govers, R.** and Wortel, M.J.R., 1993. Initiation of asymmetric extension in continental lithosphere. *Tectonophysics*, 223: 75-96.
2. **Govers, R.**, Wortel, M.J.R., Cloetingh, S.A.P.L. and Stein, C.A., 1992. Stress magnitude estimates from earthquakes in oceanic plate interiors. *Journal Geophysical Research*, 97: 11,749-11,759.
1. Wortel, M.J.R., Remkes, M.J.N., **Govers, R.**, Cloetingh, S.A.P.L. and Meijer, P.T., 1991. Dynamics of the lithosphere and the intraplate stress field. *Philosophical Transactions of the Royal Society A*, 337: 111-126.

### Reviewed Books

2. Van Hinsbergen, D.J.J., Edwards, M.A., and **Govers, R.** (eds), Collision and Collapse at the Africa – Arabia – Eurasia Subduction Zone. *Geological Society, London, Special Publications*, 311, 2009.
1. **Govers, R.M.A.**, 1993. Dynamics of lithospheric extension: A modeling study. *Geologica Ultraiectina*, (PhD thesis Utrecht University, Netherlands), 105, 240 pp ([full text](#)).

### Other publications

11. **Govers, R.**, J.-P. Avouac, K. Wang, and R. Carbonell, Editorial Note, *Tectonophysics*, 664, 2015.
10. Marketos, G., D.B.T. Broerse, C.J. Spiers, and **R. Govers**, *Long-term subsidence study of the Ameland gas field: time-dependence induced by rocksalt flow*, Report to the Steering Committee for the long-term subsidence study in the Wadden Sea region, June 26, 2015.
9. **Govers, R.** Editorial Note. *Tectonophysics*, 608, 1452, 2013.
8. **Govers, R.**, *De L'Aquila aardbeving: wetenschap versus samenleving?*, KennisLink Column, 27 November 2012.
7. **Govers, R.**, *Krakend Eurasië*, Gea Stichting Geologische Activiteiten, **45**, Maart 2012.
6. Wortel, R., and **R. Govers**, Driving Earth's surface motions, *Nature "News and Views"*, 465, 559, 2010.
5. Van Benthem, S., en **R. Govers**, De tijdbom onder Haïti, *Geografie*, 7-8, 2010.
4. Hoe de Middellandse Zee een zoutpan werd, *Natuur-Wetenschap en Techniek (NWT)*, 76(12), 2008.
3. Stille kracht; De hand onder de Andes, *Natuur-Wetenschap en Techniek (NWT)*, 75(11), 2007.
2. Wortel, M.J.R. and **Govers, R.**, 2004. Van continental drift tot plaattektoniek. In: E. Berkens, e.a. (Editor), *De Aarde verdeeld en verbeeld, berekend en getekend*. Walburg Pers, Zutphen, The Netherlands, pp. 42-45.
1. **Govers, R.**, Numerical modeling: Mixing fluids and solids, *Nature "News and Views"*, 376, 645-645, 1995.

### Project acquisitions

- NSF            *Implications of grain growth observations for the evolution of the western Mediterranean upper mantle* (\$26,058), 7/1/94 - 6/31/95 (**P.I.**)
- NATO           *The dynamic evolution of microplates*, NATO Collaborative Research Grant 1996 (**P.I.**)
- NEESDI        *Mantle driven vertical motions in central and southern Europe: implications for tectonic and sedimentary processes in northwestern Europe*, postdoctoral position Saskia Goes, 1997.
- GOI/UU        *Modes of Collision: Transient Plate Tectonics Along The Tethys*, Ph.D. position De Franco, 2003-2007 (**P.I.**).
- ESF/NWO      *Why Western Mediterranean basins evolved diversely since the Oligocene*, granted as part of the ESF EUROCORES Collaborative Research Proposal Euro-Margins/WESTMED Ph.D. project Baes 2004 (**co-P.I.**).
- ESF/NWO      *Geodynamic evolution STEPS in the Western Mediterranean*, granted as part of the ESF EU-

- ROCORES Collaborative Research Proposal Euro-Margins/WESTMED: Ph.D. project Ruckstuhl 2004 (**co-P.I.**).
- NWO *How plate tearing and slabs drive reorganization of the N Caribbean plate boundary*, NWO/ALW open competition, Ph.D. project Van Benthem 2006 (**P.I.**).
- ISES *Coupling deep structure to new neotectonic observations along the Algerian margin*, Visiting Research Fellow grant Domzig, 2007.
- ESF/NWO *Quantifying uplift due to evolution of East Mediterranean plate boundaries and upper mantle structure*, granted as part of the ESF EUROCORES Collaborative Research Proposal Topo-Europe/VAMP Ph.D. project 2008 (k€229) (**co-P.I.**).
- ISES Technician numerical modeling support 2009-2011.
- NWO *New constraints on lithosphere rheology from the gravitational signature of post-seismic deformation*, Postdoc project 2009 (k€212) (**co-P.I.**).
- NWO *Scalability properties of GTECTON*, Govers (20,000 Processor Node Hours) (**P.I.**).
- EU-FP7 *MEDGATE Marie Curie Initial Training Network call FP7-PEOPLE-2011-ITN* (member)
- NWO *Chaotic Terrains on Mars: testing the subsurface lake hypothesis*, Postdoc project 2011 (k€241) (**co-P.I.**).
- ISES Technician numerical modeling support 2013-2015.
- ISES *Reconstructing the stress and strain field evolution of Eurasia during the Cenozoic*, Ph.D. project, (k€240) (**P.I.**).
- NAM *Anomalous time dependent subsidence above Dutch gas fields: determining the cause and improving long-term predictions*, post-doc project (k€400) (P.I. with C. Spiers).
- ISES *Numerical modeling of strain localization*, Ph.D. project, 2014 (**P.I.**).
- ISES *The signature of the megathrust cycle at subduction margins: forecasting based on geodynamic models that integrate geodetic, seismological and geological observations*, Post-doc project, 2017 (**P.I.** k€210)
- ISES Computational facilities (hardware), 2017 (k€200)
- NWO/GO *Using Space Geodesy to assess the re-locking time after a major subduction earthquake*, **P.I.**, Ph.D. proposal May 2017.
- STW Perspectief *Enabling Climate Proof Delta Societies ECLIPSE*, **co-P.I. and programme leader**, Proposal for 2 Ph.D. positions, May 2017.

**Invited talk and lectures (2013-2017; conference abstracts on <http://www.geo.uu.nl/~govers>)**

- **R. Govers** and A. Fichtner, New seismological evidence for fragmentation of the Tethys slab beneath Anatolia, AGU Fall Meeting, San Francisco, 2015.
- **R. Govers**, Rinus Wortel, and Steven van Benthem, What drives micro-plate motion and deformation in the northeastern Caribbean plate boundary region?, AGU Fall Meeting, San Francisco, 2015.
- **R. Govers**, The seismic cycle at subduction zones: insights from simple finite element models (keynote lecture), SMPR 2015 conference, Kish Island (Iran), November 23-25, 2015.
- **R. Govers** and A. Fichtner, New seismological evidence for fragmentation of the Tethys slab beneath Anatolia, TopoEurope Meeting Antibes, 2015.
- **R. Govers**, C. Garcia-Sancho, K. Warners-Ruckstuhl, J. van der Burgt, and R. Wortel, A consistent geodynamic model for predicting the velocity and plate-internal deformation of Eurasia, EGU2015-11136 (GD3.3), EGU Vienna, April 2015
- **R. Govers**, S. van Benthem, R. Wortel, What drives microplate motion and deformation in the northeastern Caribbean plate boundary region? Geological Society of Italy Meeting, Milan, September 11 2014.
- **R. Govers**, Dating the collision of India by tracking the evolution of forces on Eurasia, U.A.V. Symposium 'The Himalayas - Collision and Consequences', Utrecht, September 16, 2014.
- **R. Govers**, A new tectonic force related to slab edges: NE Caribbean and the Mendocino triple junction, Durham University, Earth Science Dept Lecture, September 5, 2014.
- **R. Govers**, Physical processes that helped shaping the Caribbean region and Eurasia, SRON Wetenschapsdagen, MooiRivier, Dalfsen, June 2, 2014.
- **R. Govers**, Wortel, R. & van Bergen, M., Tektonische evolutie en geo-hazards van het Caribisch gebied, Deltares lezingenmiddag Antillen, Delft, February 6, 2014.
- R. Wortel, **R. Govers** and M. van Bergen, Caribbean Geohazards, Green Aruba IV Conference, Aruba, October 9, 2013.
- **R. Govers**, Dating the collision of India by tracking the evolution of forces on Eurasia, ETH Zürich Instituts-Kolloquium Geophysik, November 29 2013.
- **R. Govers**, K. Warners-Ruckstuhl, J. van der Burgt and R. Wortel, Developing mechanical models as a

basis for quantitative kinematics and tectonics of Eurasia, Lecture in the seminar series of the Geoscience and Remote Sensing & TU Delft Climate Institute of the Delft University of Technology, Delft, The Netherlands, May 30, 2013.

### Collaborators & Other Affiliations

Kevin Furlong (Penn State University, U.S.A.)

Tim Dixon (USF, Tampa, U.S.A.)

Eric Calais (ENS, Paris, France)

Rocco Malservisi (USF, Tampa, U.S.A.)

Pete Lafemina (Penn State University, U.S.A.)

Andreas Fichtner (ETH Zürich, Switzerland)

### Completed M.Sc. thesis Advisor

S. Dortland, C. Kreemer, P. Langebroek, J. van Wijk, Y. Berfelo, A. Reynaldos, M. van Eck van der Sluis, J. Bartol, A. Pots, J. van der Burgt, B. Vogelaar

### Ph.D. thesis Advisor (“copromotor”)

- Bartol, J., *Vertical motions and plate boundary evolution in the Anatolia-Black Sea region*; Ph.D. thesis Utrecht University, 184 pp., January 13, 2017 ([full text](#)).
- Van Benthem, S., *Plate dynamics, mantle structure and tectonic evolution of the Caribbean region*; Ph.D. thesis Utrecht University, Utrecht Studies in Earth Sciences, 44, 128 pp., October 28, 2013 ([full text](#)).
- Ruckstuhl, K.N., *Dynamics and stress field of the Eurasian plate: a combined lithosphere-mantle approach*; Ph.D. thesis Utrecht University, Utrecht Studies in Earth Sciences, 11, 116 pp., February 24, 2012 ([full text](#)).
- Baes, M., *Reorganization of convergent plate boundaries*, Ph.D. thesis Utrecht University Mededelingen van de Faculteit Geowetenschappen Universiteit Utrecht, 340, May 18, 2011 ([full text](#)).
- Schmalzle, G., *The earthquake cycle of strike-slip faults*, Ph.D. thesis University of Miami, Miami, FL, U.S.A., Rosenstiel School of Marine and Atmospheric Science, Division of Marine Geology and Geophysics, 193 pp., 2008.
- De Franco, R., *Dynamics of subduction and continental collision: influence of the nature of the plate contact*, Ph.D. thesis Utrecht University, Geologica Ultraiectina, 284, 129 pp., 2008 ([full text](#)).
- Riva, R.E.M., *Crustal rheology and postseismic deformation: modeling and application to the Apennines*, Ph.D. thesis Delft Technical University, Delft University Press, 117 pp., 2004.
- Buiter, S.J.H., *Surface deformation resulting from subduction and slab detachment*, Ph.D. thesis Utrecht University, Geologica Ultraiectina, 191, 134 pp., 2000.

### Current Ph.D. thesis Advisor

- Özbakır, A.D., *Thermo-mechanical modeling of accretion, collision and extension along the Aegean-Anatolian-Bitlis/Zagros convergent plate boundary, with implications for the Cenozoic-geodynamical evolution of Anatolia*; Funded by: ISES; Contract period: 9/2007-9/2011.
- Austmann, W., *Soft collision, STEP faulting and subduction initiation: numerical modelling with application to the NW African and south Tyrrhenian margins*; Funded by: TopoMed/ISES, Contract period 10/2010-9/2014; Defense: Utrecht University, 2017.
- Garcia Sancho, C., *Reconstructing the stress and strain field evolution of Eurasia during the Cenozoic*; Funded by: ISES, Contract period: 9/2012-8/2016, Defense: Utrecht University, 2017.
- Nijholt, N., *Initiation and evolution of plate boundaries: a first step in up-scaling micro-physical deformation mechanisms*, Funded by: ISES, Contract period: 9/2014-8/2018; Defense: Utrecht University, 2018.

### Current Postdoctoral Associates

- Taco Broerse (Ph.D. 2014, TU Delft, Netherlands), *Location, nature, and evolution of the Caribbean-South America STEP plate boundary*, funded by: ISES, February 15 2016 - February 14 2019.
- Amin Karamnejad (Ph.D. 2016, TU Delft, Netherlands), *Micro-mechanical evolution of strain localisation*, funded by: NAM, April 1 2016 - March 31 2019.
- Matthew Herman (Ph.D. 2017, Penn State University, U.S.A.),

### Former Postdoctoral Associates

A. Domzig (Ph.D. 2006, Brest, France)

C. Tirel (Ph.D. 2004, Rennes, France)

S. Goes (Ph.D. 1995, Santa Cruz, U.S.A.)  
 R. Riva (Ph.D. 2004, Delft, Netherlands)  
 M. Roda (Ph.D. 2011, Milan, Italy)

S. Quéré (Ph.D. 1999, Toulouse, France)  
 P. Vacher (Ph.D. 1995, Nantes, France)  
 G. Marketos (Ph.D. 2007 Cambridge University, U.K.)

### Research Qualification

Senior Kwalificatie Onderzoek, awarded by Utrecht University, 2008.

## Teaching

### Teaching Qualification

Basis Kwalificatie Onderwijs, awarded by Utrecht University, 2006.  
 Senior Kwalificatie Onderwijs, awarded by Utrecht University, 2007.

Course	Developed by	Taught by	Group
Introduction to Rheology	Govers and others	Govers 1995-2000	3 <sup>rd</sup> year Geology majors and Geophysics majors
Introduction to Geophysics	Govers and others	Govers 1995-2000	1 <sup>st</sup> year Earth Science majors
Geophysics Lab	Govers	Govers 1996-2000	1 <sup>st</sup> year Earth Science majors
System Earth (University College)	Govers and Van der Zwaan	Govers and Van der Zwaan 1999-2000	3 <sup>e</sup> year liberal arts students
System Earth - geophysics part	Govers	Govers 2001	1 <sup>st</sup> year Earth Science majors
Oriënterende Projecten	Govers and Middelkoop	Govers and Middelkoop 2001-2003	1 <sup>st</sup> year Earth Science majors
Dynamics of the solid Earth	Govers	Govers 2001-2008	1 <sup>st</sup> year Earth Science majors
Geophysics-Tectonophysics	Govers and Wortel	Govers and Wortel 2001-2003	3 <sup>rd</sup> year Earth Science majors
Geodynamics	Govers, Wortel and Van den Berg	Govers, Wortel and Van den Berg 2005-2012	3 <sup>rd</sup> year Earth Science majors
Tectonophysics MSc course	Wortel and Govers	Govers and Wortel 2003-2011	1 <sup>st</sup> year MSc students Earth Sciences
Tectonophysics MSc course	Govers and Cloetingh	Govers and Cloetingh 2012-2015	1 <sup>st</sup> year MSc students Earth Sciences
Tectonophysics MSc course	Govers	Govers 2015-	1 <sup>st</sup> year MSc students Earth Sciences
Tectonophysical Modeling	Govers and others	Govers 1995-2010	2 <sup>nd</sup> year MSc students Earth Sciences
Lithosphere Applications of the Finite Element Method	Govers	Govers 2006-	PhD students, post-docs, colleagues, MSc honors students
Fysica	Govers and Van der Vegt	Govers and Van der Vegt, 2009-2012	1 <sup>st</sup> year Earth Science majors
Scientific Writing	Mason and Govers	Mason and Govers 2009	PhD students
Introduction to Natural Hazards: Social, Economic and Earth Aspects	Govers, de Jong, Sanders, Meeuwesen	Govers, de Jong, Sanders, Meeuwesen, 2011-2015	2 <sup>nd</sup> and 3 <sup>rd</sup> year bachelor students
Introduction to Natural Hazards: Social, Economic and Earth Aspects	Govers, de Jong, Sanders	Govers, de Jong, Sanders, 2015-	2 <sup>nd</sup> and 3 <sup>rd</sup> year bachelor students
Hazards and risk assessment	De Jong, Govers, others	Govers, De Jong, others 2012-	1 <sup>st</sup> year MSc students Geosciences

Lithosfeer dynamica	Wortel & Govers	Govers, 2012-	2 <sup>nd</sup> year BSc students Geosciences
Modeling flexure	Govers	Govers May 2014	Ph.D. students
Modeling crust and lithosphere deformation	Willingshofer, Sokoutis, van Hinsbergen, Niemeijer, Theuilot, Govers	Willingshofer, Sokoutis, van Hinsbergen, Niemeijer, Theuilot, Govers, September 2017-	1 <sup>st</sup> year MSc students Geosciences

## Community service

- Editor-in-Chief for *Tectonophysics* (2013-2018).
- Chairman of NWO program preparation committee for the Caribbean (2013-2017).
- Member of editorial board of *Lithosphere* (2014-2016).
- Expert advisor on Groningen hazards for parliamentary committee of economic affairs (2014, 2015).
- Member of scientific committee and session convener of 17th Wegener general assembly in Leeds (2014).
- Lead convener of the Interdivision Session “The Alpine-Himalayan convergence zone: from the Mediterranean to SE Asia” (co-organized by Tectonics and Structural Geology, Geodynamics and Geodesy) at the EGU, 2008-2012. This was the largest session within the Solid Earth Division.
- Editor of “Geodynamics of Collision and Collapse at the Africa-Arabia-Eurasia Subduction Zone”, which was published as a Geological Society London Special Publication, 2009.
- Co-organizer of the DRT (Deformation mechanisms, Rheology and Tectonics) 2007 Workshop in Oropa, Italy. This workshop is the 16<sup>th</sup> in a bi-annual series that aims to promote interaction and discussion between modelers, experimentalists and field geologists.
- Member of the Scientific Committee of DRT 2007 Conference in Milan, Italy.
- Co-organizer of National Earth Sciences conference (NAC V, 2000), and of conferences of the VMSG research school.
- Reviewer of research proposals and scientific papers.
- Multiple memberships and chair (2005) of NWO/ALW evaluation committees “Open competition”.
- Member of NWO evaluation committee “VENI proposals” (2007-2010).
- Member of NWO evaluation committee “Gebruikers Ondersteuning (GO) proposals” (2012).
- Member of the 2007 SURE-NL writing team (led by Spiers) to acquire research funding from Smart-Mix initiative “Subsurface Resources and Sustainability in the Netherlands Delta System”
- Member of the 2011 Netherlands Solid Earth Observatory (NSEO) writing team (led by Spakman). We were successful in having NSEO included in the roadmap as the Netherlands contribution to the European Plate Observing System (EPOS), which is already on the European ESFRI roadmap.
- Member of the education committee of the Faculty of Earth Sciences (UU) 2000-2002.
- Chairman of the bachelor education committee of the Departments of Earth Sciences and Physical Geography (UU) 2003-2008. This committee advises the education managers on all issues related to the bachelor education program. In addition, the committee approves the *Opleidings- en Examenreglement* (OER) and keeps an eye on the quality of bachelor courses using the student and teacher evaluations as input.

## Public Outreach

Communicating Earth Science research to the general public, mostly newspaper articles, radio and television interviews, and the following lectures:

- **R. Govers**, The recent earthquake swarm in Italy, Headline Lecture Graduate School of Geosciences, Utrecht University, November 1 2016.
- **R. Govers**, De voorspelbaarheid van aardbevingen, Contactdag Nederlandse Geologische Vereniging, March 8, 2014.
- **R. Govers**, Krakend Eurazië: de ontwikkeling van een tektonische plaat sinds het Eoceen, Lecture series at Hogeschool Utrecht, 2012-2015.
- **R. Govers**, De voorspelbaarheid van aardbevingen, Rotary Weert, 19 september, 2012.
- **R. Govers**, Krakend Eurazië: de ontwikkeling van een tektonische plaat sinds het Eoceen, Lecture Hogeschool Utrecht, 21 December 2011.
- **R. Govers**, Krakend Eurazië: de ontwikkeling van een tektonische plaat sinds het Eoceen, Lecture Spe-



- cialistenserie Geologie, Naturalis The Hague, 14 October 2011.
- **R. Govers**, Communicating Science; lecture at the opening of the Geologie en Techniek Hall in the Museon, The Hague, 20 juni 2011.
  - **R. Govers**, De voorspelbaarheid van aardbevingen, Lecture Specialistenserie Geologie, Naturalis The Hague, 22 October 2010.
  - **R. Govers**, De voorspelbaarheid van aardbevingen, KNAG lezing Utrecht, 19 mei, 2010.
  - **R. Govers**, Aardbevingen, Studium Generale Groningen, april 12, 2010.