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Education:

Utrecht University	Geophysics	M.Sc.	1988	
Utrecht University	Geophysics	Ph.D.	1993/05/26	(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 ([GTecton](#)) 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=38, 6317 citations)

79. Nijholt, N., R. Gutierrez Escobar, M. Wouters, and **R. Govers**, Lithospheric Driving Forces From Recent Global Density Models, submitted to *Geophysical Journal International*, 2026.
78. Qin, W., **R. Govers**, N.L.M. Barlow, M. D'Acquisto, R.E.M. Riva, Bridging Paleoseismic and Geodetic Observations for the AD 1700 Cascadia Earthquake with an Earthquake Cycle Model, *in prep.*, 2026.
77. Marketos, G., T. Broerse, C. Spiers, **R. Govers**, Time-dependence of subsidence above a producing gas reservoir with salt top seal: A FEM study of the role of salt flow, *AAPG Bulletin*, 110(2), 2026, doi: [10.1306/11122520175](https://doi.org/10.1306/11122520175).
76. **Govers, R.**, M.W. Herman, L. van de Wiel, and N. Nijholt, Probabilistic Assessment of the Causes of Active Deformation in Greece, Western Anatolia, and the Balkans Using Finite Element Models, *Tectonics*, 2025, doi:[10.1029/2024TC008658](https://doi.org/10.1029/2024TC008658).
75. Marsman, C., F. Vossepoel, M. D'Acquisto, Y. van Dinther, Lukas van de Wiel, and **R. Govers**, Unravelling Processes and Rheology of the Tohoku Earthquake Cycle Using Bayesian Inference, *Journal of Geophysical Research - Solid Earth*, 2025, doi: [10.1029/2024JB029665](https://doi.org/10.1029/2024JB029665).
74. Wouters, M.C., **R. Govers**, and R.F. Hanssen, Development of an efficient model to calculate subsidence above the Groningen gas field, *Netherlands Journal of Geosciences*, Volume 104, e12151, doi: [10.70712/NJG.v104.12151](https://doi.org/10.70712/NJG.v104.12151), 2025.
73. Sgroi, T., G. Barberi, L. Gasperini, **R. Govers**, N. Nijholt, G. Lo Mauro, M. Ligi, A. Torelli, A. Polonia, Structural development and seismogenesis in the Messina Straits revealed by stress/strain pattern

- above the edge of the Calabrian slab (central Mediterranean), *Tectonophysics*, doi:10.1016/j.tecto.2025.230920, 2025.
72. Marsman, C., F. Vossepoel, Y. van Dinther, and **R. Govers**, Estimating Geodynamic Model Parameters from Geodetic Observations Using a Particle Method, *Geophysical Journal International*, 236, 1183–1205, 2024, doi: [10.1093/gji/ggad450](https://doi.org/10.1093/gji/ggad450).
 71. D'Acquisto, M., and **R. Govers**, Offshore landward motion shortly after a subduction earthquake implies rapid relocking of the shallow megathrust, *Geophysical Research Letters*, 50, e2022GL101638, 2023, doi: [10.1029/2022GL101638](https://doi.org/10.1029/2022GL101638).
 70. D'Acquisto, M., M. W. Herman, R. E. M. Riva, **R. Govers**, On the cause of enhanced landward motion of the overriding plate after a major subduction earthquake, *Journal of Geophysical Research - Solid Earth*, 128(3), e2022JB025431, 2023, doi: [10.1029/2022JB025431](https://doi.org/10.1029/2022JB025431).
 69. D'Acquisto, M., Broerse, T., Marsman, C.P., and **Govers, R.**, Reconciling the conflicting extent of overriding plate deformation before and during megathrust earthquakes in South America, Southeast Asia, and Japan, *Geophysical Journal International*, 235, 879–908, 2023, doi: [10.1093/gji/ggad262](https://doi.org/10.1093/gji/ggad262).
 68. Simons, Wim, Taco Broerse, Lin Shen, Olga Kleptsova, Nicolai Nijholt, Andrew Hooper, Julie Pietrzak, Yu Morishita, Marc Naeije, Stef Lhermitte, Matthew Herman, Dina Anggreni Sarsito, Joni Efendi, Sofian, **Rob Govers**, Christophe Vigny, Hasanuddin Zainal Abidin, Gatot Haryo Pramono, Cahyo Nugroho, Pieter Visser, Riccardo Riva, A tsunami generated by a strike-slip event: constraints from GPS and SAR data on the 2018 Palu earthquake, *Journal of Geophysical Research - Solid Earth*, 2022, doi: [10.1002/essoar.10510490.1](https://doi.org/10.1002/essoar.10510490.1)
 67. Blasweiler, M., Herman, M.W., Houtsma, F., and **Govers, R.**, Tectonic context and possible triggering of the 2019-2020 Puerto Rico earthquake sequence, *Seismological Research Letters*, 2022.
 66. Arkle, J.C., Weber, J., Enkelmann, E., Owen, L.A., **Govers, R.**, Jess, S., Denison, C., O'Sullivan, P.B., Donelick, R.A., Exhumation of the Coastal Metamorphic Belt above the Subduction-to-Transform Transition, in the Southeast Caribbean Plate Corner, *Tectonics*, 40(8), e2020TC006414, doi: [10.1029/2020TC006414](https://doi.org/10.1029/2020TC006414), 2021.
 65. Wouters, M., Adam, J., Eagles, G., Perez Diaz, L., Tuck-Martin, A., **Govers, R.**, Dynamics of the African plate 75 Ma: from plate kinematic reconstructions to intraplate paleo-stresses, *Tectonics*, 40(7), doi: [10.1029/2020TC006355](https://doi.org/10.1029/2020TC006355), 2021.
 64. Herman, M.W., and **Govers, R.**, Locating fully locked asperities along the South America subduction megathrust: a new physical inter-seismic inversion approach in a Bayesian framework, *G-cubed*, 21(8), 6595-6616, doi: [10.1029/2020GC009063](https://doi.org/10.1029/2020GC009063), 2020.
 63. Herman, M.W., and **Govers, R.**, Extensional deformation in subduction zones triggered by co-seismic stress changes from megathrust earthquakes, *Earth and Planetary Science Letters*, 544, doi: [10.1016/j.epsl.2020.116379](https://doi.org/10.1016/j.epsl.2020.116379), 2020.
 62. Özbakır, A., **R. Govers**, and A. Fichtner, The Kefalonia Transform Fault: a STEP in the making, *Tectonophysics*, 228471, doi: [10.1016/j.tecto.2020.228471](https://doi.org/10.1016/j.tecto.2020.228471), 2020.
 61. Broerse, T., Norder, T., **Govers, R.**, Sokoutis, D., Willingshofer, E. Picken, S., New analogue materials for nonlinear lithosphere rheology, with an application to slab break-off, *Tectonophysics*, 756, 73-96, doi: [10.1016/j.tecto.2018.12.007](https://doi.org/10.1016/j.tecto.2018.12.007), 2018.
 60. Herman, M., Furlong, K.P., and **Govers, R.**, The accumulation of slip deficit in subduction zones in the absence of mechanical coupling: Implications for the behavior of megathrust earthquakes, *Journal of Geophysical Research - Solid Earth*, doi: [10.1029/2018JB016336](https://doi.org/10.1029/2018JB016336), 2018.
 59. Nijholt, N. **Govers, R.**, and Wortel, R., On the forces that drive and resist deformation of the south-central Mediterranean: a mechanical model study, *Geophysical Journal International*, 214(2), 876-894, doi: [10.1093/gji/ggy144](https://doi.org/10.1093/gji/ggy144), 2018.
 58. **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, *Reviews of Geophysics*, 85(7), 457-501, doi: [10.1002/2017RG000586](https://doi.org/10.1002/2017RG000586), 2018.
 57. Roda, M., Marketos, G., Westerweel, and **R. Govers**, Morphological expressions of crater infill collapse: model simulations of Chaotic Terrains on Mars, *G-cubed*, 18(10), 3687-3699, doi: [10.1002/2017GC006933](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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**, The role of passive margins 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. Buitter, 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

13. **Govers, R.**, L. van de Wiel, Initial public release of GTecton platform [Software] (Version 2024.05), <https://doi.org/10.5281/zenodo.11471903>, 2024.
12. **Govers, R.**, *Modeling megathrust zones*, Eos, 99, <https://doi.org/10.1029/2018EO090253>, 22 January 2018.
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.
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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 EUROCORES 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.**).
- ISES Location, nature, and evolution of the Caribbean-South America STEP plate boundary, 3 yr post-doctoral research project, 2014 (k€250) (**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. project 2017.
- NWO/DeepNL *Monitoring and Modeling the Groningen Subsurface based on integrated Geodesy and Geophysics: improving the space-time dimension*, collaborative research proposal lead by R. Hanssen (**co-PI.** k€218), November 2018.
- NWO/GO *Fingerprinting vertical land motion from the earthquake cycle above subduction zones*, (**P.I.**), Ph.D. project, July 2020.
- NWO/DeepNL *Quantitative constraints on pre-production reservoir stresses in Groningen*, (**P.I.**), Ph.D. project 2021.
- NWO/GO *Interaction of seismogenic faults as constrained by space geodesy in Sulawesi, Indonesia*, collaborative postdoc project UU-TUD-U Leeds, February 2023-January 2026.
- NWO/DeepNL *Developing a Data-Constrained Forecasting Model of Surface Deformation in the Groningen gas Field Region*, (**lead P.I.** k€1065), December 2023.

Conference abstracts are listed on <http://www.geo.uu.nl/~govers>)

Collaborators

Kevin Furlong (Penn State University, USA.)
 Riccardo Riva (Technical University Delft)
 Matthew Herman (CalState Bakersfield USA)
 Femke Vossepoel (TU Delft, Netherlands)

Tim Dixon (USF, Tampa, USA)
 Andreas Fichtner (ETH Zürich, Switzerland)
 Ramon Hanssen (TU Delft, Netherlands)
 Esther Stouthamer (Utrecht U, Netherlands)

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, N. Nijholt, A. Pots, J. van der Burgt, B. Vogelaar, M. Wouters, M. Willemse, E. Bijlsma, C. Wolf

Completed Ph.D. thesis

- D'Acquisto, Mario, *Interpreting GPS observations of the megathrust earthquake cycle: insights from numerical models*, Funded by: NWO/GO, Defense: Utrecht University, April 14 2023 ([full text](#)).
- Nijholt, Nicolai, *Initiation and evolution of plate boundaries: a first step in up-scaling micro-physical deformation mechanisms*, Defense: Utrecht University, November 2019.
- 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*; Defense: November 2019.
- 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.
- Buitter, 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

- Marius Wouters, *Monitoring and Modeling the Groningen Subsurface based on integrated Geodesy and Geophysics: improving the space-time dimension*, Funded by: NWO/DEEPNL, Contract period 1/9/2019 to 30/11/2023. Defense: Utrecht University.
- Céline Marsman, *Fingerprinting vertical land motion from the earthquake cycle above subduction zones*, Funded by: NWO/GO; Defense: September 22, 2026 Utrecht University.
- Weilun Qin, *Unravelling the solid earth and GIA contribution to sea level change (SESeaL)*, Funded by a donation to Delft Technical University, Contract period 2021/10/15 to 2025/10/14, Defense: Delft Technical University
- Renato Gutiérrez Escobar, *Quantitative constraints on pre-production reservoir stresses in Groningen*, Funded by: NWO/DEEPNL, Contract period 1/2/2022 to 23/8/2026. Defense: Utrecht University.
- Yuta Hiruma, *Developing a Data-Constrained Forecasting Model of Surface Deformation in the Groningen gas Field Region*, 1/10/2024-30/9/2028, Defense: Utrecht University, 2028.

Former Postdoctoral Associates

Taco Broerse (now at Delft Technical University, Netherlands)

George Marketos (now at COWI London, U.K.)

Saskia Goes (now at Imperial College London, U.K.)

Riccardo Riva (now at TU Delft, Netherlands)

Matt Herman (now at CalState Bakersfield, U.S.A.)

Manuel Roda (now at Università degli studi di Milano, Italy)

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
Erasmus+ course on the Motor of Plate Tectonics	Govers	Govers	Geoscience MSc students at University of Trieste (Italy)
Introduction to Rheology	Govers and others	Govers 1995-2000	3 rd year Geology majors and Geophysics majors
Introduction to Geophysics	Govers and others	Govers 1995-2000	1 st year Earth Science majors
Geophysics Lab	Govers	Govers 1996-2000	1 st year Earth Science majors
System Earth (University College)	Govers and Van der Zwaan	Govers and Van der Zwaan 1999-2000	3 ^e year liberal arts students
System Earth - geophysics part	Govers	Govers 2001	1 st year Earth Science majors
Oriënterende Projecten	Govers and Middelkoop	Govers and Middelkoop 2001-2003	1 st year Earth Science majors
Dynamics of the solid Earth	Govers	Govers 2001-2008	1 st year Earth Science majors
Geophysics-Tectonophysics	Govers and Wortel	Govers and Wortel 2001-2003	3 rd year Earth Science majors
Geodynamics	Govers, Wortel and Van den Berg	Govers, Wortel and Van den Berg 2005-2012	3 rd year Earth Science majors
Tectonophysics MSc course	Wortel and Govers	Govers and Wortel 2003-2011	1 st year MSc students Earth Sciences
Tectonophysics MSc course	Govers and Cloetingh	Govers and Cloetingh 2012-2015	1 st year MSc students Earth Sciences
Tectonophysics MSc course	Govers	Govers 2015-2027	1 st year MSc students Earth Sciences
Tectonophysical Modeling	Govers and others	Govers 1995-2010	2 nd year MSc students Earth Sciences
Lithosphere Applications of the Finite Element Method	Govers	Govers 2006-2027	PhD students, post-docs, colleagues, MSc honors students
Fysica	Govers and Van der Vegt	Govers and Van der Vegt, 2009-2012	1 st 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 nd and 3 rd year bachelor students
Introduction to Natural Hazards: Social, Economic and Earth Aspects	Govers, de Jong, Sanders	Govers, de Jong, Sanders, 2015-2027	2 nd and 3 rd year bachelor students
Hazards and risk assessment	De Jong, Govers, others	Govers, De Jong, others 2012-	1 st year MSc students Geosciences
Lithosfeer dynamica	Wortel & Govers	Govers, 2012-2024	2 nd year BSc students Geosciences
Modeling flexure	Govers	Govers May 2014	Ph.D. students

Modeling crust and lithosphere deformation	Willingshofer, van Hinsbergen, Niemeijer, van Dinther, Govers	Willingshofer, van Hinsbergen, Niemeijer, van Dinther, Govers, September 2017-2025	1 st year MSc students Geosciences
Sedimentary Geology - Geophysics module	Govers	Govers 2024-2027	2nd year BSc students Geosciences
Aardse warmte, dynamiek en gevaren	van Dinther en Govers	van Dinther and Govers, September 2025-2027	3rd year BSc students Geosciences

Community service

- Member “Klankbordgroep” of the parliamentary hearing committee on Groningen (2021-2023).
- Member of the AGU Tectonophysics Morgan Early Career Award Committee (2018-2020).
- Expert advisor on Groningen hazards for parliamentary committee that prepares parliamentary hearings in 2021.
- Editor-in-Chief for *Tectonophysics* (2013-2019).
- Internship coordinator *Earth Sciences* and *Physical Geography* (2014-).
- 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.
- 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.
- Member of the Scientific Committee of DRT 2007 Conference in Milan, Italy.
- 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 2011 Netherlands Solid Earth Observatory (NSEO) writing team.
- 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.

Public Outreach

Communicating Earth Science research to the general public, mostly newspaper articles, radio and television interviews, and invited lectures (last 5 years):

- **R. Govers**, Causes and consequences of the Mw 8.8 earthquake and tsunami near Kamchatka of July 30, Lunch lecture Faculty of Geosciences, August 1 2025.
- **R. Govers**, The Science Behind an Earthquake: The February 6 2023 Turkey earthquake, Utrecht University Online Lecture, February 14 2023.