Institute of Geophysics and Tectonics
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Iris van Zelst

Research experience

2020–present **Postdoctoral research associate in geophysics**, *University of Leeds*, United Kingdom, *Geodynamics and Tectonics Group*.

2015–2020 **PhD candidate**, *ETH Zürich*, Switzerland, *Seismology and Wave Physics Group*.

2018, 2019 **Visiting researcher**, *Utrecht University*, The Netherlands, *Tectonics Group*.

2016, 2017, 2018, 2019 **Visiting researcher**, *Ludwig-Maximilians-Universität München*, Germany, *Seismology Group*.

2014 **Visiting student**, *Norges Geologiske Undersøkelse*, Norway, *Geodynamics Team*.

Education

2015–2020 **Doctor of Philosophy**, *ETH Zürich*, Switzerland.
Thesis: Tsunamigenic earthquakes: from tectonics to dynamic rupture
Supervisors: A. Fichtner & Y. van Dinther
Additional committee members: T. V. Gerya & P. M. Mai
Chair person: P. Tackley

2014–2015 **Master of Science, Earth structure and dynamics**, *Utrecht University*, The Netherlands, *Cum laude, GPA 4.0*.
Total duration of program: 1.5 years (instead of the nominal 2 years)
Track: Physics of the deep Earth and planets
Master thesis: Mantle dynamics on Venus: insights from numerical modelling
Supervisors: A. P. van den Berg & R. C. Ghail & C. Thieulot
Guided Research: Numerical geodynamic modelling: compression and extension using ASPECT, SULEC and ELEFANT
Supervisors: C. Thieulot & S. J. H. Buiter

2011–2014 **Bachelor of Science, Earth sciences**, *Utrecht University*, The Netherlands, *Cum laude, GPA 4.0*.
Total duration of program: 2.5 years (instead of the nominal 3 years)
Tracks: Dynamics of the Solid Earth & Geology of the Solid Earth
Bachelor thesis: On the influence of weak zones on lithospheric- and crustal-scale numerical models
Supervisors: C. Thieulot & W. Spakman

2004–2010 **Gymnasium**, *Dr. Mollercollege*, Waalwijk, The Netherlands, *Cum laude*.

Teaching

2017, 2020 **Supervisor MSc students**.
- Euan Miles, *Modelling the Dynamic Triggering of Outer Rise Earthquakes*, 2020, University of Leeds
- Sunniva Moris, *Simulating Earthquake-Generated Subduction Zone Tsunamis*, 2017, ETH Zürich

2012–2015 **Teaching assistant**, *Utrecht University*, The Netherlands.
- System Earth 1, *first year BSc course, 2014*
- Chemistry of the Earth 2, *first year BSc course, 2013*
- Physics, *first year BSc course, 2013 and 2014*
- Linear Algebra and Vector Analysis, *second year BSc course, 2012 and 2013*
- Differential Equations in the Earth Sciences, *second year BSc course, 2013 and 2015*
- Programming and Modelling of Earth Processes, *third year BSc course, 2013 and 2014*
- Continuum mechanics, *third year BSc course, 2014*

Organisation, outreach, and community engagement

2020–present **Reviewer**, *Journal of Geophysical Research: Solid Earth*.

2018–present **EGU GA convener**, *European Geosciences Union*, Vienna, Austria.

Sessions:
- 2021 – Inter- and intraplate seismicity in subduction zones
- 2019 – Understanding large subduction earthquakes and tsunamigenesis by integrating geological and geophysical observations, laboratory results, and numerical modeling

Short courses:
- 2021 – Geodynamics 101: Numerical models
- 2019 – Geodynamics 101B: Large-scale dynamic processes
- 2019 – Geodynamics 101A: Numerical methods
- 2018 – Geodynamics 101: How to use and interpret numerical models of the solid Earth
- 2018 – Seismology for non-seismologists: earthquakes & tsunamis

2017–present **Editor-in-Chief EGU Geodynamics blog**, *European Geosciences Union*.

Recruit & manage team of ∼11 editors including PhDs, postdocs, and senior scientists with the aim of uploading twice a week. I also invite and edit posts for guest authors and write blog posts myself. I am the contact person between our GD blog team and the EGU GD social media team, the EGU communications officer, and editorial teams of other EGU division blogs.

2019 **Organiser symposium on geophysical space missions to terrestrial planets**, Zürich, Switzerland.

1-day symposium with 11 speakers (7 external). Responsible for initiation of the symposium, inviting speakers, making the scientific program, organising lunch and coffee, and the budget.

2018 **Co-organiser & member of scientific committee of the 2nd ASCETE workshop on coupling earthquakes and tsunamis**, Bayrischzell, Germany.

3-day workshop with 32 attendees; 8 invited keynote speakers. Responsible for selection of (based on abstracts) and communication with participants, scientific program, transport to venue, room allocations, and chairing the poster sessions and one oral session.

2016–2017 **Organiser group seminars and progress meetings**, *ETH Zürich*, Switzerland.

2014–2015 **Member Master education committee**, *Utrecht University*, The Netherlands.

2014–2015 **Member support committee BaMa 3.0**, *Utrecht University*, The Netherlands.

2014–2015 **Guest lecturer (high school level)**, The Netherlands.
- 2015 – Seismic tomography: Beta Plus Lecture at Utrecht University, Utrecht, The Netherlands
- 2014 – Earth sciences: guest lecture general science at Dr. Mollercollege, Waalwijk, The Netherlands

2013–2014 **Student-member education board Earth sciences: master-students representative**, *Utrecht University*, The Netherlands.

Awards & grants

2018 **AGU Outstanding Student Presentation Award**, *Seismology Section, AGU Fall Meeting 2018*, Washington, D.C., USA.

2018 **EGU Best blog post**, *by Luca Dal Zilio for the EGU GD Blog Team, EGU*, Munich, Germany.

2017 **Research grant $5000,-**, *CIDER*, Berkeley, USA, Co-PI.

2014 **Travel grant**, *Post-Alpbach, European Space Agency*, France.

2014 **Student grant**, *GeoMod*, Potsdam, Germany.

2014 **Oscar for competitiveness of the mission**, *Summer School Alpbach*, Austria.

2014 **Oscar for quality of presentation**, *Summer School Alpbach*, Austria.

2014 **Student grant**, *SRON Netherlands Institute for Space Research*, Utrecht, The Netherlands.

Invited seminars

University of Cambridge – 2020; University of Oxford – 2020; Utrecht University – 2019, 2014(2x); LMU Munich – 2018; ETH Zürich – 2018, 2014; Geological Survey of Norway – 2014

Certificates & additional education

2017 **Writing at doctoral level: Natural science and engineering**, *Language Center of UZH and ETH Zürich*, Zürich, Switzerland.

2017 **Subduction zone dynamics**, *CIDER Summer School*, Berkeley, California, USA.

2014 **Post-Alpbach**, *Winter School Alpbach*, Graz, Austria.

2014 **Earthquakes: nucleation, triggering, and relationship with aseismic processes**, *Training School*, Cargèse, Corsica, France.

2014 **Space missions for geophysics of the terrestrial planets**, *Summer School Alpbach*, Austria.

2010–2011 **Applied mathematics**, *Eindhoven University of Technology*, The Netherlands.

Computer skills

OS Mac OSX, Linux, Windows

languages FORTRAN95, Matlab, Python, HTML, C++

software Gmesh, Git, LaTeX, VI-editor, Adobe Illustrator, ParaView

modelling Finite differences (I2ELVIS), Finite elements (SeisSol, Fieldstone, ELEFANT, ASPECT, SULEC)

Languages

Dutch Native English Bilingual proficiency

Publication summary

4 peer-reviewed articles; 2 contributions (code manual & space mission concept); 2 preprints/submitted articles; 2 articles in preparation; 2 invited conference abstracts; 52 conference abstracts (24 first-author of which 8 talks).

Publications

4. Brizzi, S., **Van Zelst, I.**, Funiciello, F., Corbi, F., and Van Dinther, Y. (2020). How sediment thickness influences subduction dynamics and seismicity. *Journal of Geophysical Research: Solid Earth*, 125(8), e2019JB018964.
3. **Van Zelst, I.**, Wollherr, S., Madden, E. H. , Gabriel, A.-A., and Van Dinther, Y. (2019). Modeling megathrust earthquakes across scales: one-way coupling from geodynamics and seismic cycles to dynamic rupture. *Journal of Geophysical Research: Solid Earth*, 124(11), 11414-11446.
2. Ulrich, T., Vater, S., Madden, E. H., Behrens, J., Van Dinther, Y., **Van Zelst, I.**, Fielding, E. J., Liang, C., and Gabriel, A.-A. (2019). Coupled, physics-based modeling reveals earthquake displacements are critical to the 2018 Palu, Sulawesi tsunami. *Pure and Applied Geophysics*, 176(10), 4069-4109.
1. Boneh, Y., Schottenfels, E., Kwong, K., **Van Zelst, I.**, Tong, X., Eimer, M., Miller, M. S., Moresi, L., Warren, J. M., Wiens, D. A., Billen, M., Naliboff, J., Zhan, Z. (2019). Intermediate-Depth Earthquakes Controlled by Incoming Plate Hydration Along Bending-Related Faults. *Geophysical Research Letters*, 46(7), 3688-3697.

Contributions

2. *Hesperos: A geophysical mission to Venus*
Koopmans, R.-J., Białek, A., Donohoe, A., Fernández Jiménez, M., Frasl, B., Gurciullo, A., Kleinschneider, A., Losiak, A., Mannel, T., Muñoz Elorza, I., Nilsson, D., Oliveira, M., Sørensen-Clark, P. M., Timoney, R., and **Van Zelst, I.**, arXiv:1803.06652, 2018.

1. ASPECT: *Advanced Solver for Problems in Earth's ConvecTion, User Manual*
Bangerth, W., and Heister, T. **et al.**, Computational Infrastructure in Geodynamics, 2014.

Preprints / submitted articles

2. Madden, E. H., Bader, M., Behrens, J., Van Dinther, Y., Gabriel, A.-A., Rannabauer, L., Ulrich, T., Uphoff, C., Vater, S., Wollherr, S., **Van Zelst, I.** (2019). Methods and Test Cases for Linking Physics-Based Earthquake and Tsunami Models. EarthArXiv: doi.org/10.31223/osf.io/rzvn2
1. **Van Zelst, I.**, Brizzi, S., Van Rijsingen, E., Funiciello, F., and Van Dinther, Y. (2019). Investigating global correlations between tsunami, earthquake, and subduction zone characteristics. EarthArXiv: doi.org/10.31223/osf.io/dm2t4.

Articles in preparation

2. **Van Zelst, I.**, Crameri, F., Pusok, A. E., Glerum, A., Dannberg, J., Thieulot, C.. A short summary of geodynamic numerical modelling. To be submitted to *Solid Earth*.
1. **Van Zelst, I.**, Rannabauer, L. , Gabriel, A.-A., and Van Dinther, Y.. Earthquake rupture on multiple splay faults and its effect on tsunamis. To be submitted to *Geophysical Research Letters*.

Invited conference presentations

2. *Modelling splay fault rupture and tsunamis with self-consistent initial conditions from a geodynamic seismic cycle model of subduction*
I. van Zelst, L. Rannabauer, A.-A. Gabriel, and Y. van Dinther. **AGU 2020**, San Francisco, California, USA (online). *Panel member*.
1. *Tsunamigenic earthquakes preferentially occur in sediment-starved subduction zones with a rough incoming seafloor*
I. van Zelst, S. Brizzi, E. van Rijsingen, F. Funiciello, and Y. van Dinther. **AGU 2019**, San Francisco, California, USA. *eLightning Presentation*.

Conference abstracts

2020

52. *Thermal models of subduction zones revisited*
I. van Zelst, T. J. Craig, C. Thieulot. **AGU 2020**, San Francisco, California, USA (online).
51. *The influence of sediment thickness on subducting plate velocity*
S. Brizzi, T. W. Becker, C. Faccenna, **I. van Zelst**, and Y. van Dinther **AGU 2020**, San Francisco, California, USA (online).
50. *Modelling splay fault rupture and tsunamis constrained by geodynamics*
I. van Zelst, L. Rannabauer, A.-A. Gabriel, and Y. van Dinther. **GeoUtrecht 2020**, Utrecht, The Netherlands (online). *Talk*.
49. *Subduction earthquakes from geodynamics to dynamic rupture*
I. van Zelst, S. Wollherr, L. Rannabauer, E. H. Madden, A.-A. Gabriel, Y. van Dinther. **COMET Annual Meeting**, Liverpool, United Kingdom (online). *Talk*.
48. *The effect of multiple splay fault rupture on tsunamis*
I. van Zelst, L. Rannabauer, A.-A. Gabriel, and Y. van Dinther. **EGU 2020**, Vienna, Austria (online). *Virtual display*.
47. *Linking geodynamic subduction models to self-consistent 3D dynamic earthquake rupture and tsunami simulations*
S. A. Wirp, A.-A. Gabriel, E. H. Madden, **I. van Zelst**, L. Krenz, and Y. van Dinther. **EGU 2020**, Vienna, Austria (online). *Virtual display*.

46. *#SciComm via the European Geoscience Union Divisions' blogs: experiences from the editorial teams*
V. Cigala, C. Burgard, H. Davies, **I. van Zelst**, T. Alberti, M. Sprenger, H. Jurikova, E. van Rijsingen, O. Trani, L. Barnard and the Divisions' Blog Teams. **EGU 2020**, Vienna, Austria (online). *Virtual display*.

45. *Modelling megathrust earthquakes from tectonics to dynamic rupture*
I. van Zelst, S. Wollherr, E. H. Madden, A.-A. Gabriel, Y. van Dinther. **Understanding earthquakes using the geological record**, London, United Kingdom. *Poster*.

2019

44. *Splay fault rupture dynamics and off-fault deformation constrained by geodynamic subduction modelling*
I. van Zelst, A.-A. Gabriel, Y. van Dinther. **AGU 2019**, San Francisco, California, USA. *Poster*.

43. *Sediment thickness and its influence on subduction dynamics and seismicity*
S. Brizzi, **I. van Zelst**, F. Corbi, F. Funiciello, Y. van Dinther. **AGU 2019**, San Francisco, California, USA. *Talk*.

42. *Plastic deformation, slip segmentation, geodynamic constraints and seafloor uplift in dynamic earthquake rupture models of the Great 2004 Sumatra-Andaman earthquake*
A.-A. Gabriel, T. Ulrich, **I. van Zelst**, E. H. Madden, Y. van Dinther. **AGU 2019**, San Francisco, California, USA. *Talk*.

41. *Coupled, physics-based modeling reveals earthquake displacements are critical in generating the 2018 Palu, Sulawesi tsunami*
E. H. Madden, T. Ulrich, S. Vater, J. Behrens, Y. van Dinther, **I. van Zelst**, E. J. Fielding, C. Liang, A.-A. Gabriel. **AGU 2019**, San Francisco, California, USA. *Poster*.

40. *Complex splay fault rupture and its effect on seafloor displacements*
I. van Zelst, S. Wollherr, A.-A. Gabriel, Y. van Dinther. **EGU 2019**, Vienna, Austria. *Poster*.

39. *Plastic deformation and seafloor uplift in geomechanically constrained dynamic rupture models of subduction zone earthquakes*
S. Wollherr, **I. van Zelst**, A.-A. Gabriel, E. H. Madden, Y. van Dinther. **EGU 2019**, Vienna, Austria. *Poster*.

38. *Coupled 3D Earthquake Dynamic Rupture - Tsunami Models & the ASCETE framework*
E. H. Madden, J. Behrens, M. Bader, Y. van Dinther, A.-A. Gabriel, L. Rannabauer, S. Rettenberger, T. Ulrich, C. Uphoff, S. Vater, S. Wollherr, **I. van Zelst**. **EGU 2019**, Vienna, Austria. *Poster*.

2018

37. *A Coupled Method Using Longterm Subduction Models to Provide Realistic Conditions for Dynamic Earthquake Models*
I. van Zelst, S. Wollherr, E. H. Madden, A.-A. Gabriel, Y. van Dinther. **AGU 2018**, Washington, D.C., USA. *Talk*.

36. *Coupled Seismic Cycle - Earthquake Dynamic Rupture - Tsunami Models*
A.-A. Gabriel, J. Behrens, M. Bader, Y. van Dinther, T. Gunawan, E. H. Madden, L. Rannabauer, S. Rettenberger, T. Ulrich, C. Uphoff, S. Vater, S. Wollherr, **I. van Zelst**. **AGU 2018**, Washington, D.C., USA. *Poster*.

35. *Physics-based Coupled Models of the 2018 Sulawesi Earthquake and Tsunami*
E. H. Madden, T. Ulrich, L. Rannabauer, S. Vater, A.-A. Gabriel, J. Behrens, D. Li, T. Taufiqurrahman, Y. van Dinther, M. Bader, C. Uphoff, S. Wollherr, **I. van Zelst**. **AGU 2018**, Washington, D.C., USA. *Poster*.

34. *Linking Intermediate Depth Seismicity to Plate-bending Related Faulting*
M. Miller, **I. van Zelst**, K. Kwong, X. Tong, M. Eimer, Y. Hu, Y. Boneh, E. Schottenfels, L. Moresi, J. Warren, D. Wiens. **AOGS 2018**, Honolulu, Hawaii, USA. *Poster*.

33. *A complementary approach to provide realistic long-term stress conditions for a dynamic rupture model of a megathrust earthquake*
I. van Zelst, Y. van Dinther, A.-A. Gabriel, S. Wollherr, E. H. Madden. **EGU 2018**, Vienna, Austria. *Talk*.

32. *The influence of subduction zone tectonics on earthquake-generated tsunamis*
I. van Zelst, S. Brizzi, Y. van Dinther, F. Funiciello, A. Heuret. **EGU 2018**, Vienna, Austria. *Poster*.

31. *Dynamic rupture models of subduction zone earthquakes with off-fault plasticity*
S. Wollherr, A.-A. Gabriel, **I. van Zelst**, Y. van Dinther, T. Ulrich, E. Madden. **EGU 2018**, Vienna, Austria. *Poster*.

30. *A Benchmarking Setup for Coupled Earthquake Cycle - Dynamic Rupture - Tsunami Simulations*
E. Madden, J. Behrens, M. Bader, Y. van Dinther, A.-A. Gabriel, S. Rettenberger, T. Ulrich, C. Uphoff, S. Vater, S. Wollherr, **I. van Zelst**. **EGU 2018**, Vienna, Austria. *Poster*.

29. *Linking intermediate depth seismicity to plate-bending related faulting*
I. van Zelst, K. Kwong, X. Tong, M. Eimer, Y. Hu, Y. Boneh, E. Schottenfels, Z. Zhan, M. Miller, L. Moresi, J. Warren, D. A. Wiens. **EGU 2018**, Vienna, Austria. *Poster*.

28. *Using a geodynamic seismic cycle model to provide realistic stresses for a dynamic rupture scenario*
I. van Zelst, Y. van Dinther, C. Pranger, R. Herrendörfer, L. Dal Zilio, C. Petrini, S. Preuss, A.-A. Gabriel, S. Wollherr, E. Madden. **2nd ASCETE workshop on coupling earthquakes and tsunamis**, Bayrischzell, Germany. *Talk*.

27. *Providing realistic stress conditions for a dynamic megathrust earthquake*
I. van Zelst, Y. van Dinther, A.-A. Gabriel, S. Wollherr, E. Madden. **2nd ASCETE workshop on coupling earthquakes and tsunamis**, Bayrischzell, Germany. *Poster*.

2017

26. *Linking incoming plate faulting and intermediate depth seismicity*
K. Kwong, **I. van Zelst**, X. Tong, M. Eimer, S. Naif, Y. Hu, Z. Zhan, Y. Boneh, E. Schottenfels, M. S. Miller, L. Moresi, J. M. Warren, D. A. Wiens. **AGU 2017**, New Orleans, Louisiana, USA. *Poster*.

25. *Dynamic rupture models of subduction zone earthquakes with off-fault plasticity*
S. Wollherr, **I. van Zelst**, A.-A. Gabriel, Y. van Dinther, E. H. Madden, T. Ulrich. **AGU 2017**, New Orleans, Louisiana, USA. *Poster*.

24. *How long-term dynamics of sediment subduction control short-term dynamics of seismicity*
S. Brizzi, **I. van Zelst**, Y. van Dinther, F. Funiciello, F. Corbi. **AGU 2017**, New Orleans, Louisiana, USA. *Talk*.

23. *Numerical modelling of tsunamigenic fault systems*
I. van Zelst, Y. van Dinther, A.-A. Gabriel, S. Wollherr, E. Madden. **Workshop: Frontiers in Studies of Earthquakes and Faults**, Shenzhen, China. *Poster*.

22. *The influence of tectonics and wave propagation on splay fault activation*
I. van Zelst, Y. van Dinther, A.-A. Gabriel, S. Wollherr, E. Madden. **XV International Workshop on Numerical Modelling of Mantle and Lithosphere Dynamics 'NetherMod' 2017**, Putten, The Netherlands. *Poster*.

21. *Tsunamigenic faults: insights from numerical modelling*
I. van Zelst, S. Brizzi, E. Madden, Y. van Dinther, A.-A. Gabriel, S. Wollherr, T. Ulrich, A. Heuret, F. Funiciello. **CIDER Summer School 2017**, Berkeley, California, USA. *Poster*.

20. *The role of splay faults in seafloor deformation and tsunami generation during the M 9.1-9.3 2004 Sumatra-Andaman Earthquake*
E. H. Madden, T. Ulrich, A.-A. Gabriel, **I. van Zelst**, Y. van Dinther. **Proceedings of the 14th International Conference on Fracture**, edited by E. E. Gdoutos, Rhodes, Greece. *Poster*.

19. *Coupling a geodynamic seismic cycle to a dynamic rupture model with an application to splay fault propagation*
I. van Zelst, Y. van Dinther, A.-A. Gabriel, S. Wollherr, and E. Madden. **EGU 2017**, Vienna, Austria. *Talk*.

18. *Identifying tectonic parameters that influence tsunamigenesis*
I. van Zelst, S. Brizzi, Y. van Dinther, A. Heuret, and F. Funiciello. **EGU 2017**, Vienna, Austria. *Poster*.

17. *Dynamic Rupture Models Suggest High Fluid Pressures and Low Differential Stresses for the M 9.2 2004 Sumatra-Andaman Earthquake*
E. Madden, **I. van Zelst**, T. Ulrich, Y. van Dinther, and A.-A. Gabriel. **EGU 2017**, Vienna, Austria. *Talk*.

16. *What favors the occurrence of subduction mega-earthquakes?*
S. Brizzi, F. Funiciello, F. Corbi, L. Sandri, **I. van Zelst**, A. Heuret, C. Piromallo, and Y. van Dinther. **EGU 2017**, Vienna, Austria. *Talk*.

15. *A Coupled Earthquake-Tsunami Simulation Framework Applied to the Sumatra 2004 Event*
S. Vater, M. Bader, J. Behrens, Y. van Dinther, A.-A. Gabriel, E. H. Madden, T. Ulrich, C. Uphoff, S. Wollherr, and **I. van Zelst**. **EGU 2017**, Vienna, Austria. *Talk*.

14. *A Benchmarking setup for Coupled Earthquake Cycle - Dynamic Rupture - Tsunami Simulations*
J. Behrens, M. Bader, Y. van Dinther, A.-A. Gabriel, E. H. Madden, T. Ulrich, C. Uphoff, S. Vater, S. Wollherr, and **I. van Zelst**. **EGU 2017**, Vienna, Austria. *Poster*.

2016

13. *Megathrust vs splay fault: rupture path selection in subduction zones*
I. van Zelst, Y. van Dinther, A.-A. Gabriel, S. Wollherr. **AGU 2016**, San Francisco, California, USA. *Talk*.

12. *Identifying tectonic parameters that affect tsunamigenesis*
S. Brizzi, **I. van Zelst**, A. Heuret, F. Funiciello, Y. van Dinther. **AGU 2016**, San Francisco, California, USA. *Poster*.

11. *Using New Constraints on Stress and Strength in Dynamic Rupture Models of the M 9.1-9.3 2004 Sumatra-Andaman Earthquake*
E. H. Madden, **I. van Zelst**, T. Ulrich, Y. van Dinther, A.-A. Gabriel. **AGU 2016**, San Francisco, California, USA. *Poster*.

10. *Rupture path selection of potentially tsunamigeneic earthquakes: Megathrust vs splay fault*
I. van Zelst, Y. van Dinther, A.-A. Gabriel. **Volkswagen symposium**, Hannover, Germany. *Poster*.

9. *Mechanical Constraints on Initial Conditions for Dynamic Rupture Models of the 2004 Sumatra-Andaman Earthquake*
E. H. Madden, **I. van Zelst**, T. Ulrich, Y. van Dinther, A.-A. Gabriel. **Gordon Research Conference on Rock Deformation**, Andover, New Hampshire, USA. *Poster*.

8. *Coupling geodynamic seismic cycle and dynamic rupture models*
I. van Zelst, Y. van Dinther, A.-A. Gabriel. **PASC 2016**, Lausanne, Switzerland. *Poster*.

7. *Seismo-thermo-mechanical modelling of tsunamigenic earthquakes*
I. van Zelst, Y. van Dinther, J. Behrens, M. Bader, A.-A. Gabriel, E. H. Madden, T. Ulrich, C. Uphoff, S. Wollherr. **From the laboratory to applications for earthquakes and tsunamis: bridging the gap with numerical modelling**, 2016, Rome, Italy. *Talk*.

6. *Coupling geodynamic earthquake cycles and dynamic ruptures*
   I. van Zelst, Y. van Dinther, A.-A. Gabriel, and A. Heuret. **EGU 2016**, Vienna, Austria. *Poster*.
5. *Test problems for coupled earthquake-tsunami simulations*
   J. Behrens, M. Bader, Y. van Dinther, A.-A. Gabriel, E. H. Madden, K. Rahnema, T. Ulrich, C. Uphoff, S. Vater, S. Wollherr, and **I. van Zelst**. **EGU 2016**, Vienna, Austria. *Poster*.

2015

4. *Hesperos: A Post-Alpbach Mission Result*
   R.-J. Koopmans, A. Losiak, A. Białek, A. Donohoe, M. Fernández Jiménez, B. Frasl, A. Gurciullo, A. Kleinschneider, T. Mannel, I. Muñoz Elorza, D. Nilsson, M. Oliveira, Paul Sørensen-Clark, R. Timoney, and **I. van Zelst**. **EPSC 2015**, Nantes, France. *Talk*.
3. *Investigating the geophysics of Venus: Result of the post-Alpbach Summer School 2014*.
   R.-J. Koopmans, A. Losiak, A. Białek, A. Donohoe, M. Fernández Jiménez, B. Frasl, A. Gurciullo, A. Kleinschneider, T. Mannel, I. Muñoz Elorza, D. Nilsson, M. Oliveira, Paul Sørensen-Clark, R. Timoney, and **I. van Zelst**. **EGU 2015**, Vienna, Austria. *PICO*.
2. *A geophysical mission to Venus: Result of the Alpbach Summer School 2014*
   R.-J. Koopmans, A. Losiak, A. Białek, A. Donohoe, M. Fernández Jiménez, B. Frasl, A. Gurciullo, A. Kleinschneider, T. Mannel, I. Muñoz Elorza, D. Nilsson, M. Oliveira, Paul Sørensen-Clark, R. Timoney, and **I. van Zelst**. **LPSC 2015**, The Woodlands, Texas, USA. *Poster*.

2014

1. *The role of weak seeds in numerical modelling of continental extensional systems*.
   I. van Zelst, C. Thieulot, S. J. H. Buiter, J. Naliboff and W. Spakman. **GeoMod 2014**, Potsdam, Germany. *Poster*.