

Publications

Peer-reviewed articles

PUBLISHED

41. Dianala, J. D., R. Jolivet, M. Y. Thomas, Y. Fukushima, B. Parsons & R. Walker, The relationship between seismic and aseismic slip on the Philippine Fault on Leye Island: Bayesian modeling of fault slip and geothermal subsidence, *Journal of Geophysical Research-Solid Earth*, doi: [10.1029/2020JB020052](https://doi.org/10.1029/2020JB020052), 2020.
40. Cornou, C., et al. Rapid response to the Mw4.9 earthquake of November 11, 2019 in Le Teil, Lower Rhone valley, Accepted at *Comptes Rendus Géosciences*, doi: [10.31219/osf.io/3afs5](https://doi.org/10.31219/osf.io/3afs5), 2020.
39. Hulbert, C., B. Rouet-Leduc , R. Jolivet & P. Johnson, An exponential build-up in seismic energy suggests a months-long nucleation of slow slip in Cascadia, *Nature Communications*, doi: [10.1038/s41467-020-17754-9](https://doi.org/10.1038/s41467-020-17754-9), 2020.
38. Dalaison, M. & R. Jolivet, A Kalman filter time series analysis method for InSAR, *Journal of Geophysical Research - Solid Earth*, doi: [10.1029/2019JB019150](https://doi.org/10.1029/2019JB019150), 2020.
37. Jolivet, R., M. Simons, Z. Duputel, J.-A. Olive, H. S. Bhat & Q. Bletery, Interseismic coupling drives long-term uplift in northern Chile, *Geophysical Research Letters*, doi: [10.1029/2019GL085377](https://doi.org/10.1029/2019GL085377), 2020.
36. Benoit, A., B. Pinel-Puyssegur, R. Jolivet. & C. Lasserre, CorPhu: an algorithm based on phase closure for the correction of unwrapping errors in SAR interferometry, *Geophysical Journal International*, doi: [10.1093/gji/ggaa120](https://doi.org/10.1093/gji/ggaa120), 2020.
35. Jolivet R. & W. B. Frank, The transient and intermittent nature of slow slip, *AGU Advances*, doi: [10.1029/2019AV000126](https://doi.org/10.1029/2019AV000126), 2020.
34. Dal Zilio, L., R. Jolivet & Y. Van Dinther, Segmentation of the Main Himalayan Thrust Illuminated by Bayesian Inference of Interseismic Coupling, *Geophysical Research Letters*, doi: [10.1029/2019GL086424](https://doi.org/10.1029/2019GL086424), 2020.
33. Gombert, B., Z. Duputel, E. Shabani, L. Rivera, R. Jolivet & J. Hollingsworth, Impulsive source of the 2017, Mw=7.3, Ezgeleh, Iran, earthquake, *Geophysical Research Letters*, doi: [10.1029/2018GL081794](https://doi.org/10.1029/2018GL081794), 2019.
32. Gombert, B., Z. Duputel, R. Jolivet, M. Simons, J. Jiang, C. Liang, E. Fielding & L. Rivera, Strain budget of the Ecuador-Colombia subduction zone: a stochastic view, *Earth and Planetary Science Letters*, doi: [10.1016/j.epsl.2018.06.046](https://doi.org/10.1016/j.epsl.2018.06.046), Vol. 498, pp. 288-299, 2018.
31. Pinel-Puyssegur, B., C. Lasserre, A. Benoit, R. Jolivet, M.-P. Doin & J. Champenois, A Simple Phase Unwrapping Errors Correction Algorithm Based on Phase Closure Analysis, *IGARSS 2018 - 2018 IEEE Inter-*

- national Geoscience and Remote Sensing Symposium, doi: [10.1109/IGARSS.2018.8518050](https://doi.org/10.1109/IGARSS.2018.8518050), pp. 2212–2215, 2018.
- 30. Gardonio, B., R. Jolivet, E. Calais & H. Leclère, The April 2017 Mw6.5 Botswana Earthquake: An Intraplate Event Triggered by Deep Fluids, *Geophysical Research Letters*, doi: [10.1029/2018GL078297](https://doi.org/10.1029/2018GL078297), 2018.
 - 29. Romanet, P., H. S. Bhat, R. Jolivet & R. Madariaga, Fast and slow earthquakes emerge due to fault geometrical complexity, *Geophysical Research Letters*, doi: [10.1029/2018GL077579](https://doi.org/10.1029/2018GL077579), 2018.
 - 28. Cécillon, L., F. Baudin, C. Chenu, S. Houot, Jolivet R., T. Kätterer, S. Lutfalla, A. Macdonald, F. van Oort, A. F. Plante, F. Savignac, L. Soucémarianadin, P. Barré, A model based on Rock-Eval thermal analysis to quantify the size of the centennially persistent organic carbon pool in temperate soils, *Biogeosciences*, Vol. 15(9), pp. 2835-2849, doi: [10.5194/bg-15-2835-2018](https://doi.org/10.5194/bg-15-2835-2018), 2018.
 - 27. Riel, B., M. Simons, D. Ponti, P. Agram & R. Jolivet, Quantifying Ground Deformation in the Los Angeles and Santa Ana Coastal Basins due to Groundwater Pumping *Water Resource Research*, doi: [10.1029/2017WR021978](https://doi.org/10.1029/2017WR021978), 2018.
 - 26. Jolivet, R. & M. Simons, A multi-pixel time series analysis method accounting for ground motion, atmospheric noise and orbital errors, *Geophysical Research Letters*, Vol. 45(4), pp. 1814-1824, doi: [10.1002/2017GL076533](https://doi.org/10.1002/2017GL076533), 2018.
 - 25. Michel, S., J.-P. Avouac, R. Jolivet & L. Wang, Seismic and aseismic moment budget and implication for the seismic potential of the Parkfield segment of the San Andreas Fault, *Bulletin of the Seismological Society of America*, Vol. 108(1), pp. 19-38, doi: [10.1785/0120160290](https://doi.org/10.1785/0120160290), 2018.
 - 24. Gombert, B., Z. Duputel, R. Jolivet C. Doubre, L. Rivera & M. Simons, Revisiting the 1992 Landers earthquake: a Bayesian exploration of co-seismic slip and off-fault damage, *Geophysical Journal International*, Vol. 212(2), pp.839-852, doi: [10.1093/gji/ggx455](https://doi.org/10.1093/gji/ggx455), 2018.
 - 23. Klein, R., C. Vigny, L. Fleitout, R. Grandin, R. Jolivet, E. Rivera & M. Metois, A comprehensive analysis of the Illapel 2015 Mw 8.3 earthquake from GPS and InSAR data, *Earth and Planetary Science Letters*, Vol. 469, pp. 123-134, doi: [10.1016/j.epsl.2017.04.010](https://doi.org/10.1016/j.epsl.2017.04.010), 2017.
 - 22. Daout, S., S. Barbot, G. Peltzer, M.-P. Doin, Z. Liu & R. Jolivet, Constraining the kinematics of metropolitan los angeles faults with a slip-partitioning model, *Geophysical Research Letters*, Vol. 43 (21), pp. 11,192-11,201, doi: [10.1002/2016GL071061](https://doi.org/10.1002/2016GL071061), 2016.
 - 21. Rousset, B., R. Jolivet, M. Simons, C. Lasserre, B. Riel, P. Milillo, Z. Çakir & F. Renard, An aseismic slip transient on the North Anatolian fault, *Geophysical Research Letters*, Vol. 43 (7), pp. 3254-3263, doi: [10.1002/2016GL068250](https://doi.org/10.1002/2016GL068250), 2016.
 - 20. Daout, S., R. Jolivet, C. Lasserre, M.-P. Doin, S. Barbot, P. Tapponnier, G. Peltzer, A. Socquet & J. Sun, Along-strike variations of the partitioning of convergence across the Haiyuan fault detected by InSAR, *Geophysical Journal International*, Vol. 205, pp. 536-547, doi: [10.1093/gji/ggw028](https://doi.org/10.1093/gji/ggw028), 2016.
 - 19. Elliott, J. R., R. Jolivet, P. J. Gonzalez, J.-P. Avouac, J. Hollingsworth, M. P. Searle & V. Stevens, Himalayan megathrust geometry and relation to topography revealed by the Gorkha earthquake, *Nature Geoscience*, Vol. 9, doi: [10.1038/ngeo2623](https://doi.org/10.1038/ngeo2623), 2016.
 - 18. Copley, A. & R. Jolivet, Fault rheology in an aseismic fold an thrust belt, *Journal of Geophysical Research - solid earth*, Vol. 121 (1), pp. 412-431, doi: [10.1002/2015JB012431](https://doi.org/10.1002/2015JB012431), 2016.
 - 17. Duputel, Z., J. Jiang, R. Jolivet, M. Simons, L. Rivera, J.-P. Ampuero, B. Riel, S. E. Owens, A. W. Moore, S. V. Samsonov, F. Ortega-Culaciati & S. Minson, The Iquique earthquake sequence of April 2014: Bayesian

- modeling accounting for prediction uncertainty, *Geophysical Research Letters*, Vol. 42 (19), pp. 7949-7957, doi: 10.1002/2015GL065402, 2015.
16. Lin, N. Y., R. Jolivet, M. Simons, P. S. Agram, H. R. Martens, Z. Li & S. H. Lodi, High interseismic coupling in the eastern Makran (Pakistan) subduction zone, *Earth and Planetary Science Letters*, Vol. 420 (C), pp. 116-126, doi: 10.1016/j.epsl.2015.03.037, 2015.
15. Jolivet, R., M. Simons, P. S. Agram, Z. Duputel & Z.-K. Shen, Aseismic slip and seismogenic coupling along the central San Andreas Fault, *Geophysical Research Letters*, Vol. 42, doi: 10.1002/2014GL062222, 2015.
14. Jolivet, R., T. Candela, C. Lasserre, F. Renard, Y. Klinger, & M.-P. Doin, The Burst-like behavior of aseismic slip on a rough fault: the creeping section of the Haiyuan fault, China, *Bulletin of the Seismological Society of America*, Vol. 105, doi: 10.1785/0120140237, 2015.
13. Jolivet, R., P. Agram, N. Y. Lin, M. Simons, M.-P. Doin, G. Peltzer & Z. Li, Improving InSAR geodesy using Global Atmospheric Models, *Journal of Geophysical Research*, , Vol. 119, doi: 10.1002/2013JB010588, 2014.
12. Jolivet, R., Z. Duputel, B. Riel, M. Simons, L. Rivera, S. Minson, H. Zhang, M. Aivazis, F. Ayoub, S. Leprince, S. Samsonov, M. Motagh & E. J. Fielding, The 2013 Mw7.7 Balochistan earthquake: seismic potential of an accretionary wedge, *Bulletin of the Seismological Society of America*, Vol. 104 (2), pp. 1020-1030, doi: 10.1785/0120130313, 2014.
11. Avouac, J.-P., F. Ayoub, S. Wei, J.-P. Ampuero, L. Meng, S. Leprince, R. Jolivet, Z. Duputel & D. Helmberger, The 2013 Mw7.7 Balochistan earthquake, energetic strike-slip reactivation of a thrust fault, *Earth and Planetary Science Letters*, Vol. 391(C), pp. 128-134, doi: 10.1016/j.epsl.2014.01.036, 2014.
10. Agram, P. S., R. Jolivet, B. Riel, N. Y. Lin, M. Simons, E. Hetland, M.-P. Doin & C. Lasserre, New Radar interferometric time series analysis toolbox released, *Eos*, Vol. 94(7), pp. 69-76, doi: 10.1002/2013EO070001, 2013.
9. Jolivet, R., C. Lasserre, M.-P. Doin, G. Peltzer, J.-P. Avouac, R. Dailu & J. Sun, Spatio-temporal evolution of aseismic slip along the Haiyuan fault, China: Implications for fault frictional properties, *Earth and Planetary Science Letters*, Vol. 377-378, pp. 23-33, doi: 10.1016/j.epsl.2013.07.020, 2013.
8. Grandin, R., M.-P. Doin, L. Bollinger, B. Pinel-Puyssegur, G. Ducret, R. Jolivet & S. N. Sapkota, Long-term growth of the Himalaya inferred from interseismic InSAR measurement, *Geology*, , Vol. 40 (12), pp. 1059-1062, doi: 10.1130/g33154, 2012.
7. Jolivet, R., C. Lasserre, M.-P. Doin, S. Guillaso, G. Peltzer, R. Dailu & J. Sun, Shallow creep on the Haiyuan fault (Gansu, China), revealed by SAR interferometry, *Journal of Geophysical Research*, Vol. 117 (B6), doi: 10.1029/2011JB008732, 2012.
6. Julea, A., N. Méger, C. Rigotti, E. Trouvé, R. Jolivet, & P. Bolon, Efficient Spatiotemporal mining of satellite image time series for agricultural monitoring, *Transactions on machine learning and data mining*, Vol. 5(1), pp. 23-44, 2012.
5. Méger, N., R. Jolivet, C. Lasserre, E. Trouvé, C. Rigotti, F. Lodge, M.-P. Doin, S. Guillaso, A. Julea & P. Bolon, Spatiotemporal mining of Envisat SAR interferogram time series over the Haiyuan fault in China, 6th International Workshop of the Analysis of Multi-temporal Remote Sensing Images (Multi-Temp), pp. 137-141, doi: 10.1109/Multi-Temp.2011.6005067, 2011.
4. Doin, M.-P., S. Guillaso, R. Jolivet, C. Lasserre, F. Lodge, G. Ducret & R. Grandin, Presentation of the small baseline NSBAS processing chain on a case example: the Etna deformation monitoring from 2003 to 2010 using Envisat data, *Proceedings of the Fringe symposium*, Frascati, Italy, , ESA-SP-697, 2011.

3. Jolivet, R., R. Grandin, C. Lasserre, M.-P. Doin, & G. Peltzer, Systematic InSAR tropospheric phase delay corrections from global meteorological reanalysis data, *Geophysical Research Letters*, Vol. 38 (17), doi: 10.1029/2011GL048757, 2011.
2. Jolivet, R., R. Bürgmann & N. Houlié, Geodetic exploration of the elastic properties of the northern San Andreas fault zone, *Earth and Planetary Science Letters*, Vol. 288 (1-2), pp. 126-131, doi: 10.1016/j.epsl.2009.09.014, 2009.
1. Jolivet, R., R. Cattin, N. Chamot-Rooke, C. Lasserre & G. Peltzer, Thin-plate modeling of interseismic deformation and asymmetry across the Altyn Tagh fault zont, *Geophysical Research Letters*, Vol. 35 (2), doi: 10.1029/2007GL031511, 2008.

Books

La Terre à l'oeil nu, editions CNRS , 2019

Remote sensing applications to characterization of geohazards and natural resources, Springer, *To be published in 2020*

Selected oral presentations

- Jolivet, R., C. Lasserre, M. Simons, B. Rousset, J.-P. Avouac, Z. Duputel, H. S. Bhat & P. Romanet, Observing the small scale of aseismic slip along continental strike slip faults from space, AGU Fall Meeting, San Francisco, USA, 2018
- Gardonio, B., E. Calais & Jolivet, R., The April 2017 Mw6.5 Botswana Earthquake: Implications for African intraplate seismicity, AGU Fall Meeting, San Francisco, USA, 2017
- Jolivet, R., Z. Duputel, M. Simons, J. Jiang, B. Riel, A. Moore & S. Owen, Interseismic coupling, co- and post-seismic slip: a stochastic view on the northern Chilean subduction zone, AGU Fall Meeting, San Francisco, USA, 2017
- Jolivet, R. & M. Simons, A multi-pixel InSAR time series analysis method: Simultaneous estimation of atmospheric noise, orbital errors and deformation, AGU Fall Meeting, San Francisco, USA, 2016
- Jolivet, R., J. R. Elliott, P. J. Gonzalez, J.-P. Avouac, J. Hollingsworth, M. P. Searle & V. L. Stevens, The 2015 Mw 7.8 Gorkha earthquake: The geometry of the Main Himalayan Thrust and the building of topography, EGU General Assembly, Sollicited Contribution, Vienna, Austria, 2016
- Jolivet, R., Z. Duputel & M. Simons, Toward probabilistic answers to key scientific questions in source modeling: Bayesian explorations of fault slip and coupling over the earthquake cycle, EGU General Assembly, Sollicited Contribution, Vienna, Austria, 2016
- Jolivet, R., M. Simons, P. S. Agram, Z. Duputel & Z.-K. Shen, Quantifying the extent of fault coupling and aseismic slip along the central San Andreas Fault : A Bayesian approach, ESA Fringe Meeting, Frascati, Italy, 2015
- Jolivet, R., B. Rousset, M. Simons, C. Lasserre, B. Riel, P. Milillo & Z. Çakir, The transient behavior of the creeping section of the North Anatolian Fault, Turkey, AGU Fall Meeting, San Francisco, USA, 2014
- Jolivet, R., Z. Duputel, B. Riel, M. Simons, L. Rivera, S. E. Minson, H. Zhang, M. Aivazis, F. Ayoub, S. Leprince, S. Samsonov, M. Motagh & E. J. Fielding, A fully Bayesian analysis of the 2013 Balochistan earthquake : long period seismic and space-based geodetic observations, AGU Fall Meeting, San Francisco, USA, 2013

- Jolivet, R., P. Agram, M. Simons, Z.-K. Shen & H. Zhang, A Bayesian exploration of the distribution of aseismic slip along the creeping section of the San Andreas Fault, California, AGU Fall Meeting, San Francisco, USA, 2013
- Jolivet, R., T. Candela, C. Lasserre, F. Renard, M.-P. Doin & Y. Klinger, Relating fault geometry and aseismic slip along the Haiyuan fault creeping segment, AGU Fall Meeting, San Francisco, USA, 2012
- Jolivet, R., R. Grandin, C. Lasserre, M.-P. Doin & G. Peltzer, Systematic InSAR tropospheric phase delay corrections from global meteorological reanalysis data, ESA Fringe meeting, Frascati, Italy, 2011
- Jolivet, R., C. Lasserre, M.-P. Doin, G. Peltzer, S. Guillaso, J. Sun, R. Dailu & Z.-K. Shen, Shallow creep along the Haiyuan fault (Gansu, China) revealed by InSAR time series analysis, ESA Fringe meeting, Frascati, Italy, 2011
- Jolivet, R., C. Lasserre, M.-P. Doin, S. Guillaso, O. Cavalié, G. Peltzer, J. Sun, R. Dailu, Z.-K. Shen & X. Xu, Time series analysis of strain accumulation along the Haiyuan fault (Gansu, China) over the 1993-2009 period, from ERS and ENVISAT InSAR data, EGU General Assembly, Vienne Austria, 2010

Selected poster presentations

- Jolivet, R., J. R. Elliott, P. J. Gonzalez, J.-P. Avouac, J. Hollingsworth, M. P. Searle & V. L. Stevens, The 2015 Mw 7.8 Gorkha earthquake: constraining the geometry of the Min Hymalayan Thrust from space geodesy, AGU Fall Meeting, San Francisco, USA, 2015
- Jolivet, R., C. Lasserre, M.-P. Doin, S. Guillaso, O. Cavalié, G. Peltzer, J. Sun, R. Dailu, Z.-K. Shen & X. Xu, Time series analysis of strain accumulation across the Haiyuan fault, Gansu, China, over the 2003-2009 period from ENVISAT InSAR data, ESA Dragon Symposium, Guilin, China, 2010
- Jolivet, R., C. Lasserre, M.-P. Doin, S. Guillaso, O. Cavalié, G. Peltzer, J. Sun & R. Dailu, Time series analysis of strain accumulation across the Haiyuan fault, China, from ENVISAT InSAR data (2003-2009), ESA Living Planet, Bergen, Norway, 2010
- Jolivet, R., C. Lasserre, N. Lin, M. Simons, M.-P. Doin, E.A. Hetland, P. Muse, G. Peltzer, S. Jianbao & R. Dailu, Time series and MinTS analysis of strain accumulation along the Haiyuan fault (Gansu, China) over the 2003-2010 period, from ENVISAT InSAR data, AGU Fall Meeting, San francisco, USA, 2010
- Jolivet, R., C. Lasserre, M.-P. Doin, S. Guillaso, O. Cavalié, G. Peltzer, J. Sun, R. Dailu, Z.-K. Shen & X. Xu, Time series analysis of strain accumulation across the Haiyuan fault, Gansu, China, over the 2003-2009 period from ENVISAT InSAR data, AGU Fall Meeting, San francisco, USA, 2010
- Jolivet, R., C. Lasserre, M.-P. Doin, S. Guillaso, O. Cavalié, G. Peltzer, J. Sun, R. Dailu, Z.-K. Shen & X. Xu, Time series analysis of strain accumulation across the Haiyuan fault, Gansu, China, over the 2003-2009 period from ENVISAT InSAR data, ESA Fringe Meeting, Frascati, Italy, 2009
- Jolivet, R., C. Lasserre, M.-P. Doin, S. Guillaso, O. Cavalié, G. Peltzer, J. Sun, R. Dailu, Z.-K. Shen & X. Xu, Space and time evolution of strain accumulation across the Haiyuan fault, Gansu, China, over the 2003-2009 period from ENVISAT InSAR data, ESA Dragon Symposium, Barcelona, Spain, 2009