

Scientific Output – STEPHEN P. HICKS

Journal Articles

Hicks, S.P., Rietbrock, A., Ryder, I., Lee, C.S. & Miller, M (2014). Anatomy of a megathrust: The 2010 M8.8 Maule, Chile earthquake rupture zone imaged using seismic tomography, *Earth Planet. Sci. Lett.*, 405, 142-155.

<http://dx.doi.org/10.1016/j.epsl.2014.08.028>

Altmetric Score: 71

Hicks, S.P., Rietbrock, A., Haberland, C., Ryder, I.M.A., Simons, M. & A. Tassara (2012). The 2010 Mw 8.8 Maule, Chile earthquake: Nucleation and rupture controlled by a subducted topographic high, *Geophys. Res. Lett.*, 39 (L19308).

<http://dx.doi.org/10.1029/2012GL053184>

Citations: 10; Altmetric score: 13

Hicks, S.P., Nippres, S.J. & A. Rietbrock (2012). Sub-slab mantle anisotropy beneath south-central Chile. *Earth Planet. Sci. Lett.*, 357-308.

<http://dx.doi.org/10.1016/j.epsl.2012.09.017>

Citations: 7.

Invited Presentations

Hicks, S.P. (2014). Anatomy of a megathrust earthquake rupture: the 2010 M_w 8.8 Maule, Chile quake. Invited webinar for IRIS (Incorporated Research Institutions for Seismology) presented on 09/04/14.

<https://www.youtube.com/watch?v=MNcl5AZIX3k>

515 views.

Conference Abstracts

Hicks, S.P., Chagas, B. Rietbrock, A. & H.A. Agurto (2014). Aftershock mechanisms from the 2010 Mw 8.8 Maule, Chile earthquake: detailed analysis using full waveform inversion. Talk presented at AGU Fall Meeting 2014, abstr. T41E-06.

Garth, T., **Hicks, S.P.**, Fuenzalida Velasco, A.J., Casarotti, E., Spinuso, A. & A. Rietbrock (2014). Full waveform modelling of aftershock seismicity in the Chilean subduction zone using the VERCE platform. Poster presented at AGU Fall Meeting 2014, abstr. S31D-4453.

Hicks, S.P., Rietbrock, A., Ryder, I.M.A., Lee, C.S. & M. Miller (2013). A high-resolution 3D seismic velocity model of the 2010 Mw 8.8 Maule, Chile earthquake rupture zone using land & OBS networks. Talk presented at AGU Fall Meeting 2013, abstr. T53F-04.

<http://adsabs.harvard.edu/abs/2013AGUFM.T53F..04H>

Rietbrock, A., Jenkins, J., Tilmann, F. J., **Hicks, S. P.** & M. Palo. Repeating earthquakes on the Chile subduction zone following the Maule 2010 M 8.8 earthquake. Talk presented at AGU Fall Meeting 2013, abstr. S32A-07.

<http://adsabs.harvard.edu/abs/2013AGUFM.S32A..07R>

Palo, M., Tilmann, F. J., Krueger, F., Ehlert, L. Lange, D., Rietbrock, A., Jenkins, J. & **S.P. Hicks** (2013). High-frequency seismic radiation during Maule earthquake (Chile, 27/02/2010, Mw 8.8) inferred by backprojection of P waves: evidence of activation of two distinct zones at the downdip part of the plate interface. Poster presented at AGU Fall Meeting 2013, abstr. S43A-2501.

<http://adsabs.harvard.edu/abs/2013AGUFM.S43A2501P>

Hicks, S.P., Rietbrock, A., Ryder, I.M.A., Lee, C.S. & M. Miller (2013). An improved velocity model of the 2010 Maule earthquake rupture zone using a combined on- and off-shore network. Poster presented at EGU Assembly 2013, abstr. 5482.

<http://adsabs.harvard.edu/abs/2013EGUGA..15.5482H>

Hicks, S.P., Rietbrock, A., Ryder, I.M.A., Nippress, S., & C. Haberland, (2011): 3D Seismic Velocity Structure in the Rupture Area of the 2010 Maule Mw=8.8 Earthquake. Poster presented at American Geophysical Union Fall Meeting 2011, abstr. S11A-2202.

<http://adsabs.harvard.edu/abs/2011AGUFM.S11A2202H>

De Siena, L., **Hicks, S.P.**, Waite, G.P. & S. Moran (2010): P-wave attenuation tomography of Mount St. Helens: preliminary results from Coda-Normalised Spectra. Poster presented at American Geophysical Union Fall Meeting 2010, abstr. S31A-2044.

<http://adsabs.harvard.edu/abs/2010AGUFM.S31A2044D>

Media Coverage

LiveScience / Yahoo Science (November 2014). Seismic Speedbumps found in Chile's earthquake zone.

<http://www.livescience.com/48596-chile-subduction-zone-speed-bumps.html>

Phys.org (November 2014). Study of Chile earthquake finds new rock structure that affects earthquake rupture.

<http://phys.org/news/2014-10-chile-earthquake-affects-rupture.html>

University of Liverpool (October 2014). Postcard: Stephen Hicks on the Pacific Ocean.

<http://news.liv.ac.uk/2014/10/06/postcard-stephen-hicks-on-the-pacific-ocean/>

EGU Blogs (April 2014). A Forseeable, Yet Surprising Earthquake- Guest Blog Post

<http://blogs.egu.eu/network/geojenga/2014/04/03/a-foreseeable-yet-surprising-earthquake/>

EGU Blogs (February 2014). Seismologists Must Leave Their Comfort Zone – Guest Blog Post.

<http://blogs.egu.eu/network/geojenga/2014/02/17/seismologists-must-leave-their-comfort-zone-a-guest-post-by-steve-hicks/>

University of Liverpool (May 2012). Becoming an Expert: Stephen Hicks in Chile.

<http://news.liv.ac.uk/2012/05/14/becoming-an-expert-stephen-hicks-in-chile/>