

# Stuart A Henrys

## List of Publications by Year in descending order

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99  
papers

4,784  
citations

101543

36  
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106344

65  
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108  
all docs

108  
docs citations

108  
times ranked

3686  
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuous Tremor Activity With Stable Polarization Direction Following the 2014 Large Slow Slip Event in the Hikurangi Subduction Margin Offshore New Zealand. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, e2021JB022161.	3.4	3
2	Crustal Structure of the Hikurangi Margin From SHIRE Seismic Data and the Relationship Between Forearc Structure and Shallow Megathrust Slip Behavior. <i>Geophysical Research Letters</i> , 2022, 49, .	4.0	8
3	Crustal Structure of the Northern Hikurangi Margin, New Zealand: Variable Accretion and Overthrusting Plate Strength Influenced by Rough Subduction. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021176.	3.4	12
4	Physical conditions and frictional properties in the source region of a slow-slip event. <i>Nature Geoscience</i> , 2021, 14, 334-340.	12.9	14
5	Seismicity and velocity structure in the vicinity of repeating slow slip earthquakes, northern Hikurangi subduction zone, New Zealand. <i>Earth and Planetary Science Letters</i> , 2021, 563, 116887.	4.4	6
6	Generating High-Fidelity Reflection Images Directly From Full-Waveform Inversion: Hikurangi Subduction Zone Case Study. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL094981.	4.0	5
7	Subducted sediments, upper-plate deformation and dewatering at New Zealand's southern Hikurangi subduction margin. <i>Earth and Planetary Science Letters</i> , 2020, 530, 115945.	4.4	15
8	Temporal and spatial variations in seismic anisotropy and V/V ratios in a region of slow slip. <i>Earth and Planetary Science Letters</i> , 2020, 532, 115970.	4.4	20
9	Three-Dimensional Wave Velocity Structure of the Northern Hikurangi Margin From the NZ3D Experiment: Evidence for Fault-Bound Anisotropy. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020433.	3.4	16
10	Hydration of the crust and upper mantle of the Hikurangi Plateau as it subducts at the southern Hikurangi margin. <i>Earth and Planetary Science Letters</i> , 2020, 541, 116271.	4.4	11
11	Conjugate strike-slip faulting across a subduction front driven by incipient seamount subduction. <i>Geology</i> , 2020, 48, 493-498.	4.4	6
12	Upper Plate Heterogeneity Along the Southern Hikurangi Margin, New Zealand. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085511.	4.0	11
13	Slow slip source characterized by lithological and geometric heterogeneity. <i>Science Advances</i> , 2020, 6, eaay3314.	10.3	95
14	Seismic and lithofacies characterization of a gravity core transect down the submarine Tuaheni Landslide Complex, NE New Zealand. <i>Geological Society Special Publication</i> , 2019, 477, 479-495.	1.3	5
15	Imaging the Shallow Subsurface Structure of the North Hikurangi Subduction Zone, New Zealand, Using Full-Waveform Inversion. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 9049-9074.	3.4	24
16	Recycling of depleted continental mantle by subduction and plumes at the Hikurangi Plateau large igneous province, southwestern Pacific Ocean. <i>Geology</i> , 2019, 47, 795-798.	4.4	21
17	Ultra-Long Duration of Seismic Ground Motion Arising From a Thick, Low-Velocity Sedimentary Wedge. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 10347-10359.	3.4	31
18	Episodic stress and fluid pressure cycling in subducting oceanic crust during slow slip. <i>Nature Geoscience</i> , 2019, 12, 475-481.	12.9	101

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19	Seismicity at the Northern Hikurangi Margin, New Zealand, and Investigation of the Potential Spatial and Temporal Relationships With a Shallow Slow Slip Event. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 4751-4766.	3.4	25
20	Seismic Evidence of Magmatic Rifting in the Offshore Taupo Volcanic Zone, New Zealand. <i>Geophysical Research Letters</i> , 2019, 46, 12949-12957.	4.0	9
21	Seafloor Crustal Deformation on Ocean Bottom Pressure Records With Nontidal Variability Corrections: Application to Hikurangi Margin, New Zealand. <i>Geophysical Research Letters</i> , 2019, 46, 303-310.	4.0	20
22	Deepwater sedimentation and Cenozoic deformation in the Southern New Caledonia Trough (Northern Zealandia, SW Pacific). <i>Marine and Petroleum Geology</i> , 2018, 92, 764-779.	3.3	12
23	Using Tsunami Waves Reflected at the Coast to Improve Offshore Earthquake Source Parameters: Application to the 2016 Mw 7.1 Te Araroa Earthquake, New Zealand. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 8767-8779.	3.4	16
24	Geophysical Constraints on the Relationship Between Seamount Subduction, Slow Slip, and Tremor at the North Hikurangi Subduction Zone, New Zealand. <i>Geophysical Research Letters</i> , 2018, 45, 12,804.	4.0	72
25	Earthquakes and Tremor Linked to Seamount Subduction During Shallow Slow Slip at the Hikurangi Margin, New Zealand. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 6769-6783.	3.4	76
26	Widespread compression associated with Eocene Tonga-Kermadec subduction initiation. <i>Geology</i> , 2017, 45, 355-358.	4.4	73
27	A Fluid Pulse on the Hikurangi Subduction Margin: Evidence From a Heat Flux Transect Across the Upper Limit of Gas Hydrate Stability. <i>Geophysical Research Letters</i> , 2017, 44, 12,385.	4.0	25
28	Splay fault branching from the Hikurangi subduction shear zone: Implications for slow slip and fluid flow. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 5009-5023.	2.5	23
29	Crustal structure of the Kermadec arc from MANGO seismic refraction profiles. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 7514-7546.	3.4	29
30	Slow slip near the trench at the Hikurangi subduction zone, New Zealand. <i>Science</i> , 2016, 352, 701-704.	12.6	242
31	Gas hydrate accumulations related to focused fluid flow in the Pegasus Basin, southern Hikurangi Margin, New Zealand. <i>Marine and Petroleum Geology</i> , 2016, 77, 399-408.	3.3	26
32	Understanding the potential for tsunami generated by earthquakes on the southern Hikurangi subduction interface. <i>New Zealand Journal of Geology, and Geophysics</i> , 2016, 59, 70-85.	1.8	8
33	Seismic stratigraphy along the Amundsen Sea to Ross Sea continental rise: A cross-regional record of pre-glacial to glacial processes of the West Antarctic margin. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2016, 443, 183-202.	2.3	20
34	Investigations of Shallow Slow Slip Offshore of New Zealand. <i>Eos</i> , 2016, 97, .	0.1	1
35	Gas migration into gas hydrate-bearing sediments on the southern Hikurangi margin of New Zealand. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 725-743.	3.4	51
36	SAHKE seismic scatter imaging of subduction beneath Wellington, North Island, New Zealand. <i>Geophysical Research Letters</i> , 2015, 42, 3240-3247.	4.0	6

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37	A combined boundary integral and Lambert's Law method for modelling multibeam backscatter data from the seafloor. <i>Continental Shelf Research</i> , 2015, 103, 60-69.	1.8	9
38	A seismic reflection image for the base of a tectonic plate. <i>Nature</i> , 2015, 518, 85-88.	27.8	100
39	Fluid budgets along the northern Hikurangi subduction margin, New Zealand: the effect of a subducting seamount on fluid pressure. <i>Geophysical Journal International</i> , 2015, 202, 277-297.	2.4	62
40	Slow wavespeeds and fluid overpressure in a region of shallow geodetic locking and slow slip, Hikurangi subduction margin, New Zealand. <i>Earth and Planetary Science Letters</i> , 2014, 389, 1-13.	4.4	74
41	Shallow methane hydrate system controls ongoing, downslope sediment transport in a low-velocity active submarine landslide complex, Hikurangi Margin, New Zealand. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 4137-4156.	2.5	67
42	Revised Interface Geometry for the Hikurangi Subduction Zone, New Zealand. <i>Seismological Research Letters</i> , 2013, 84, 1066-1073.	1.9	163
43	SAHKE geophysical transect reveals crustal and subduction zone structure at the southern Hikurangi margin, New Zealand. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 2063-2083.	2.5	52
44	Wide-angle OBS velocity structure and gravity modeling along the SAHKE transect, southern North Island, New Zealand. , 2013, , .		1
45	Lithostratigraphy from downhole logs in Hole AND-1B, Antarctica. , 2012, 8, 127-140.		6
46	Late Neogene climate and glacial history of the Southern Victoria Land coast from integrated drill core, seismic and outcrop data. <i>Global and Planetary Change</i> , 2012, 80-81, 61-84.	3.5	29
47	Evolution of fluid expulsion and concentrated hydrate zones across the southern Hikurangi subduction margin, New Zealand: An analysis from depth migrated seismic data. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	2.5	74
48	Reprint of: Late Neogene climate and glacial history of the Southern Victoria Land coast from integrated drill core, seismic and outcrop data. <i>Global and Planetary Change</i> , 2012, 96-97, 157-180.	3.5	6
49	Neogene tectonic and climatic evolution of the Western Ross Sea, Antarctica " Chronology of events from the AND-1B drill hole. <i>Global and Planetary Change</i> , 2012, 96-97, 189-203.	3.5	27
50	Scientific Drilling. <i>Scientific Drilling</i> , 2012, , .	0.6	1
51	Geological controls on focused fluid flow through the gas hydrate stability zone on the southern Hikurangi Margin of New Zealand, evidenced from multi-channel seismic data. <i>Marine and Petroleum Geology</i> , 2011, 28, 1915-1931.	3.3	38
52	The potential influence of shallow gas and gas hydrates on sea floor erosion of Rock Garden, an uplifted ridge offshore of New Zealand. <i>Geo-Marine Letters</i> , 2010, 30, 283-303.	1.1	35
53	Seismic imaging of gas conduits beneath seafloor seep sites in a shallow marine gas hydrate province, Hikurangi Margin, New Zealand. <i>Marine Geology</i> , 2010, 272, 114-126.	2.1	78
54	Tectonic and geological framework for gas hydrates and cold seeps on the Hikurangi subduction margin, New Zealand. <i>Marine Geology</i> , 2010, 272, 26-48.	2.1	269

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55	Morphometric and critical taper analysis of the Rock Garden region, Hikurangi Margin, New Zealand: Implications for slope stability and potential tsunami generation. <i>Marine Geology</i> , 2010, 272, 141-153.	2.1	26
56	Focussed fluid flow on the Hikurangi Margin, New Zealand – Evidence from possible local upwarping of the base of gas hydrate stability. <i>Marine Geology</i> , 2010, 272, 99-113.	2.1	94
57	Testing proposed mechanisms for seafloor weakening at the top of gas hydrate stability on an uplifted submarine ridge (Rock Garden), New Zealand. <i>Marine Geology</i> , 2010, 272, 127-140.	2.1	32
58	Preliminary interpretation of electromagnetic, heat flow, seismic, and geochemical data for gas hydrate distribution across the Porangahau Ridge, New Zealand. <i>Marine Geology</i> , 2010, 272, 89-98.	2.1	45
59	Seismic reflection character of the Hikurangi subduction interface, New Zealand, in the region of repeated Gisborne slow slip events. <i>Geophysical Journal International</i> , 2010, 180, 34-48.	2.4	160
60	Heat Flow and Hydrologic Characteristics at the AND-1B borehole, ANDRILL McMurdo Ice Shelf Project, Antarctica. , 2010, 6, 370-378.		42
61	Fore-arc deformation and underplating at the northern Hikurangi margin, New Zealand. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	26
62	Subduction Systems Revealed: Studies of the Hikurangi Margin. <i>Eos</i> , 2010, 91, 417-418.	0.1	5
63	Three-dimensional velocity structure of the northern Hikurangi margin, Raukumara, New Zealand: Implications for the growth of continental crust by subduction erosion and tectonic underplating. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	2.5	48
64	Obliquity-paced Pliocene West Antarctic ice sheet oscillations. <i>Nature</i> , 2009, 458, 322-328.	27.8	564
65	Geometry of the Hikurangi subduction thrust and upper plate, North Island, New Zealand. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	2.5	108
66	Characterizing the seismogenic zone of a major plate boundary subduction thrust: Hikurangi Margin, New Zealand. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	2.5	142
67	Reactivation of tectonics, crustal underplating, and uplift after 60 Myr of passive subsidence, Raukumara Basin, Hikurangi-Kermadec fore arc, New Zealand: Implications for global growth and recycling of continents. <i>Tectonics</i> , 2009, 28, .	2.8	35
68	Seismic facies and stratigraphy of the Cenozoic succession in McMurdo Sound, Antarctica: Implications for tectonic, climatic and glacial history. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2008, 260, 8-29.	2.3	86
69	Cenozoic basin evolution beneath the southern McMurdo Ice Shelf, Antarctica. <i>Global and Planetary Change</i> , 2008, 62, 61-76.	3.5	14
70	The discovery of a new sedimentary basin: offshore Raukumara, East Coast, North Island, New Zealand. <i>APPEA Journal</i> , 2008, 48, 53.	0.2	4
71	Continent-continent collision at the Pacific/Indo-Australian Plate Boundary: Background, motivation, and principal results. <i>Geophysical Monograph Series</i> , 2007, , 1-18.	0.1	15
72	Geophysical structure of the Southern Alps Orogen, South Island, New Zealand. <i>Geophysical Monograph Series</i> , 2007, , 47-72.	0.1	14

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73	Geophysical exploration and dynamics of the Alpine Fault Zone. Geophysical Monograph Series, 2007, , 207-233.	0.1	37
74	Do great earthquakes occur on the Alpine Fault in central South Island, New Zealand?. Geophysical Monograph Series, 2007, , 235-251.	0.1	84
75	Kinking of the subducting slab by escalator normal faulting beneath the North Island of New Zealand. Geology, 2006, 34, 777.	4.4	50
76	Seismic scattering signatures of small-scale heterogeneities: Examples from the Mount Messenger formation, New Zealand. New Zealand Journal of Geology, and Geophysics, 2005, 48, 609-621.	1.8	2
77	Erosion of the seafloor at the top of the gas hydrate stability zone on the Hikurangi Margin, New Zealand. Geophysical Research Letters, 2005, 32, .	4.0	64
78	Improving the Resolution of Deep-Crustal Seismic Data to Study Shallow Gas Hydrates on the Hikurangi Margin, New Zealand. ASEG Extended Abstracts, 2004, 2004, 1-4.	0.1	1
79	Seismic images of gas conduits beneath vents and gas hydrates on Ritchie Ridge, Hikurangi margin, New Zealand. New Zealand Journal of Geology, and Geophysics, 2004, 47, 275-279.	1.8	36
80	Mapping the Moho beneath the Southern Alps continent-continent collision, New Zealand, using wide-angle reflections. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	14
81	Numerical models of lithospheric deformation forming the Southern Alps of New Zealand. Journal of Geophysical Research, 2003, 108, .	3.3	45
82	Conductive heat flow variations from bottom-simulating reflectors on the Hikurangi margin, New Zealand. Geophysical Research Letters, 2003, 30, .	4.0	64
83	Exploring the plate boundary structure of the North Island, New Zealand. Eos, 2003, 84, 289.	0.1	44
84	Imaging a plate boundar using double-sided onshore-offshore seismic profiling. The Leading Edge, 2003, 22, 256-260.	0.7	11
85	Multimode migration of scattered and converted waves for the structure of the Hikurangi slab interface, New Zealand. Tectonophysics, 2002, 355, 227-246.	2.2	6
86	Double-sided onshore-offshore seismic imaging of a plate boundary: "super-gathers" across South Island, New Zealand. Tectonophysics, 2002, 355, 247-263.	2.2	41
87	Three-dimensional lateral crustal thickening in continental oblique collision: an example from the Southern Alps, New Zealand. Geophysical Journal International, 2002, 150, 770-779.	2.4	28
88	GPR investigations on active faults in urban areas: the Georisc-NZ project in Wellington, New Zealand. Comptes Rendus De L'Académie Des Sciences Earth & Planetary Sciences Série II, Sciences De La Terre Et Des Planètes =, 2001, 333, 447-454.	0.2	5
89	Orbitally induced oscillations in the East Antarctic ice sheet at the Oligocene/Miocene boundary. Nature, 2001, 413, 719-723.	27.8	222
90	Preliminary results from a geophysical study across a modern, continent-continent collisional plate boundary " the Southern Alps, New Zealand. Tectonophysics, 1998, 288, 221-235.	2.2	97

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91	A seismic crustal section across the East Cape convergent margin, New Zealand. <i>Tectonophysics</i> , 1997, 269, 199-215.	2.2	26
92	Seismic stratigraphy of McMurdo Sound, Antarctica: implications for glacially influenced early Cenozoic eustatic change?. <i>Marine Geology</i> , 1996, 130, 79-98.	2.1	32
93	Asymmetric rifting in a continental back-arc environment, North Island, New Zealand. <i>Journal of Volcanology and Geothermal Research</i> , 1995, 68, 209-238.	2.1	67
94	Downwasting of the Tasman Glacier, South Island, New Zealand: Changes in the terminus region between 1971 and 1993. <i>New Zealand Journal of Geology, and Geophysics</i> , 1995, 38, 1-16.	1.8	49
95	Crustal structure of the offshore southern Santa Maria Basin and transverse ranges, southern California, from deep seismic reflection data. <i>Journal of Geophysical Research</i> , 1993, 98, 8335-8348.	3.3	5
96	Geophysical structure of the broadlandsohaaki geothermal field (New Zealand). <i>Geothermics</i> , 1990, 19, 129-150.	3.4	18
97	A geophysical reconnaissance survey of Great Barrier Island, North Island, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 1985, 28, 383-395.	1.8	3
98	Thermal Regime of the Northern Hikurangi Margin, New Zealand. <i>Geophysical Journal International</i> , 0, , .	2.4	7
99	Developing community-based scientific priorities and new drilling proposals in the southern Indian and southwestern Pacific oceans. <i>Scientific Drilling</i> , 0, 24, 61-70.	0.6	2