Gyorgy Hetenyi

List of Publications by Year in descending order

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74 papers	2,934 citations	201385 27 h-index	174990 52 g-index
104 all docs	104 docs citations	104 times ranked	2710 citing authors

#	Article	IF	Citations
1	Underplating in the Himalaya-Tibet Collision Zone Revealed by the Hi-CLIMB Experiment. Science, 2009, 325, 1371-1374.	6.0	662
2	Global quieting of high-frequency seismic noise due to COVID-19 pandemic lockdown measures. Science, 2020, 369, 1338-1343.	6.0	202
3	Density distribution of the India plate beneath the Tibetan plateau: Geophysical and petrological constraints on the kinetics of lower-crustal eclogitization. Earth and Planetary Science Letters, 2007, 264, 226-244.	1.8	168
4	The AlpArray Seismic Network: A Large-Scale European Experiment to Image the Alpine Orogen. Surveys in Geophysics, 2018, 39, 1009-1033.	2.1	138
5	Coexistence of lawsonite-bearing eclogite and blueschist: phase equilibria modelling of Alpine Corsica metabasalts and petrological evolution of subducting slabs. Journal of Metamorphic Geology, 2011, 29, 583-600.	1.6	100
6	Seismic velocities in Southern Tibet lower crust: a receiver function approach for eclogite detection. Geophysical Journal International, 2009, 177, 1037-1049.	1.0	96
7	The 2015 Gorkha earthquake: A large event illuminating the Main Himalayan Thrust fault. Geophysical Research Letters, 2016, 43, 2517-2525.	1.5	93
8	The effective elastic thickness of the India Plate from receiver function imaging, gravity anomalies and thermomechanical modelling. Geophysical Journal International, 2006, 167, 1106-1118.	1.0	90
9	Segmentation of the Himalayas as revealed by arc-parallel gravity anomalies. Scientific Reports, 2016, 6, 33866.	1.6	63
10	Active tectonics of the eastern Himalaya: New constraints from the first tectonic geomorphology study in southern Bhutan. Geology, 2014, 42, 427-430.	2.0	62
11	Scales of columnar jointing in igneous rocks: field measurements and controlling factors. Bulletin of Volcanology, 2012, 74, 457-482.	1.1	61
12	Seismotectonics of Bhutan: Evidence for segmentation of the Eastern Himalayas and link to foreland deformation. Earth and Planetary Science Letters, 2017, 471, 54-64.	1.8	60
13	Geophysical applicability of atomic clocks: direct continental geoid mapping. Geophysical Journal International, 2012, 191, 78-82.	1.0	54
14	Building the Himalaya from tectonic to earthquake scales. Nature Reviews Earth & Environment, 2021, 2, 251-268.	12.2	53
15	The underthrusting Indian crust and its role in collision dynamics of the Eastern Himalaya in Bhutan: Insights from receiver function imaging. Journal of Geophysical Research: Solid Earth, 2017, 122, 1152-1178.	1.4	51
16	Joint approach combining damage and paleoseismology observations constrains the 1714â€‰A.D. Bhutan earthquake at magnitude 8â€‰Â±â€‰0.5. Geophysical Research Letters, 2016, 43, 10,695.	1.5	48
17	Initiation of crustal-scale thrusts triggered by metamorphic reactions at depth: Insights from a comparison between the Himalayas and Scandinavian Caledonides. Tectonics, 2010, 29, n/a-n/a.	1.3	47
18	From mountain summits to roots: Crustal structure of the Eastern Alps and Bohemian Massif along longitude 13.3Â°E. Tectonophysics, 2018, 744, 239-255.	0.9	45

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19	Ground-based optical atomic clocks as a tool to monitor vertical surface motion. Geophysical Journal International, 2015, 202, 1770-1774.	1.0	40
20	Imaging the Moho and the Main Himalayan Thrust in Western Nepal With Receiver Functions. Geophysical Research Letters, 2018, 45, 13,222.	1.5	36
21	Flexure of the India plate underneath the Bhutan Himalaya. Geophysical Research Letters, 2013, 40, 4225-4230.	1.5	35
22	Anomalously deep mantle transition zone below Central Europe: Evidence of lithospheric instability. Geophysical Research Letters, 2009, 36, .	1.5	32
23	Alongâ€strike variations in the <scp>H</scp>imalayan orogenic wedge structure in <scp>B</scp>hutan from ambient seismic noise tomography. Geochemistry, Geophysics, Geosystems, 2017, 18, 1483-1498.	1.0	32
24	Melt migration in basalt columns driven by crystallization-induced pressure gradients. Nature Communications, 2011, 2, 299.	5.8	31
25	Discontinuous low-velocity zones in southern Tibet question the viability of the channel flow model. Geological Society Special Publication, 2011, 353, 99-108.	0.8	30
26	Mantle transition zone variations beneath the Ethiopian Rift and Afar: Chemical heterogeneity within a hot mantle?. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	28
27	Joint inversion of teleseismic and GOCE gravity data: application to the Himalayas. Geophysical Journal International, 2013, 193, 149-160.	1.0	28
28	Seismology at School in Nepal: A Program for Educational and Citizen Seismology Through a Low-Cost Seismic Network. Frontiers in Earth Science, 2020, 8, .	0.8	27
29	Shear wave velocity and crustal thickness in the Pannonian Basin from receiver function inversions at four permanent stations in Hungary. Journal of Seismology, 2007, 11, 405-414.	0.6	26
30	Crustal structure of the Pannonian Basin: The AlCaPa and Tisza Terrains and the Mid-Hungarian Zone. Tectonophysics, 2015, 646, 106-116.	0.9	25
31	Distribution and magnitude of stress due to lateral variation of gravitational potential energy between Indian lowland and Tibetan plateau. Geophysical Journal International, 2019, 216, 1313-1333.	1.0	25
32	Stress and deformation mechanisms at a subduction zone: insights from 2-D thermomechanical numerical modelling. Geophysical Journal International, 2020, 221, 1605-1625.	1.0	24
33	Lateral uniformity of India Plate strength over central and eastern Nepal. Geophysical Journal International, 2013, 195, 1481-1493.	1.0	23
34	Internal flow structures in columnar jointed basalt from HrepphÃ³lar, Iceland: II. Magnetic anisotropy and rock magnetic properties. Bulletin of Volcanology, 2012, 74, 1667-1681.	1.1	21
35	Swiss-AlpArray temporary broadband seismic stations deployment and noise characterization. Advances in Geosciences, 0, 43, 15-29.	12.0	21
36	AlpArray in Hungary: temporary and permanent seismological networks in the transition zone between the Eastern Alps and the Pannonian basin. Acta Geodaetica Et Geophysica, 2018, 53, 221-245.	0.7	20

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37	Sustainable densification of the deep crust. Geology, 2020, 48, 673-677.	2.0	20
38	Quantifying the impact of mechanical layering and underthrusting on the dynamics of the modern Indiaâ€Asia collisional system with 3â€D numerical models. Journal of Geophysical Research: Solid Earth, 2014, 119, 616-644.	1.4	18
39	Origin of internal flow structures in columnar-jointed basalt from HrepphÃ³lar, Iceland: I. Textural and geochemical characterization. Bulletin of Volcanology, 2012, 74, 1645-1666.	1.1	16
40	Crustal Thinning From Orogen to Backâ€Arc Basin: The Structure of the Pannonian Basin Region Revealed byPâ€toSConverted Seismic Waves. Journal of Geophysical Research: Solid Earth, 2021, 126, e2020JB021309.	1.4	16
41	Incorporating metamorphism in geodynamic models: the mass conservation problem. Geophysical Journal International, 2011, 186, 6-10.	1.0	15
42	Seismic hazard and risk in Bhutan. Natural Hazards, 2020, 104, 2339-2367.	1.6	15
43	Report on the ICDP workshop DIVE (Drilling the Ivreaâ€“Verbano zonE). Scientific Drilling, 0, 23, 47-56.	1.0	15
44	Stress transfer and connectivity between the Bhutan Himalaya and the Shillong Plateau. Tectonophysics, 2018, 744, 322-332.	0.9	13
45	Density distribution across the Alpine lithosphere constrained by 3-D gravity modelling and relation to seismicity and deformation. Solid Earth, 2019, 10, 2073-2088.	1.2	13
46	Seismic imaging of a mid-crustal low-velocity layer beneath the northern coast of the South China Sea and its tectonic implications. Physics of the Earth and Planetary Interiors, 2020, 308, 106573.	0.7	13
47	New gravity data and 3-D density model constraints on the Ivrea Geophysical Body (Western Alps). Geophysical Journal International, 2020, 222, 1977-1991.	1.0	13
48	Establishing primary surface rupture evidence and magnitude of the 1697 CE Sadiya earthquake at the Eastern Himalayan Frontal thrust, India. Scientific Reports, 2021, 11, 879.	1.6	13
49	The first pan-Alpine surface-gravity database, a modern compilation that crosses frontiers. Earth System Science Data, 2021, 13, 2165-2209.	3.7	12
50	Shear wave splitting in the Alpine region. Geophysical Journal International, 2021, 227, 1996-2015.	1.0	12
51	Spatial relation of surface faults and crustal seismicity: a first comparison in the region of Switzerland. Acta Geodaetica Et Geophysica, 2018, 53, 439-461.	0.7	11
52	Source mechanism of a lower crust earthquake beneath the Himalayas and its possible relation to metamorphism. Tectonophysics, 2019, 769, 128153.	0.9	11
53	Joint Seismic and Gravity Data Inversion to Image Intra-Crustal Structures: The Ivrea Geophysical Body Along the Val Sesia Profile (Piedmont, Italy). Frontiers in Earth Science, 2021, 9, .	0.8	11
54	Designing Inter- and Transdisciplinary Research on Mountains: What Place for the Unexpected?. Mountain Research and Development, 2020, 40, .	0.4	11

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55	Impact of an educational program on earthquake awareness and preparedness in Nepal. Geoscience Communication, 2020, 3, 279-290.	0.5	11
56	Metamorphic transformation rate over large spatial and temporal scales constrained by geophysical data and coupled modelling. Journal of Metamorphic Geology, 2021, 39, 1131-1143.	1.6	9
57	3D crustal structure of the Eastern Alpine region from ambient noise tomography. Results in Geophysical Sciences, 2020, 1-4, 100006.	0.4	8
58	Paleoseismological Findings at a New Trench Indicate the 1714 M8.1 Earthquake Ruptured the Main Frontal Thrust Over all the Bhutan Himalaya. Frontiers in Earth Science, 2021, 9, .	0.8	8
59	Moho depth analysis of the eastern Pannonian Basin and the Southern Carpathians from receiver functions. Journal of Seismology, 2019, 23, 967-982.	0.6	7
60	Joint Geophysicalâ€Petrological Modeling on the Ivrea Geophysical Body Beneath Valsesia, Italy: Constraints on the Continental Lower Crust. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009397.	1.0	7
61	Transversely isotropic lower crust of Variscan central Europe imaged by ambient noise tomography of the Bohemian Massif. Solid Earth, 2021, 12, 1051-1074.	1.2	7
62	Spatio-Temporal Evolution of Intermediate-Depth Seismicity Beneath the Himalayas: Implications for Metamorphism and Tectonics. Frontiers in Earth Science, 2021, 9, .	0.8	6
63	To conserve or not to conserve (mass in numerical models). Terra Nova, 2014, 26, 372-376.	0.9	4
64	High-resolution seismic reflection survey crossing the Insubric Line into the Ivrea-Verbano Zone: Novel approaches for interpreting the seismic response of steeply dipping structures. Tectonophysics, 2021, 816, 229035.	0.9	4
65	Two subduction-related heterogeneities beneath the Eastern Alps and the Bohemian Massif imaged by high-resolution P-wave tomography. Solid Earth, 2022, 13, 251-270.	1.2	4
66	Joint inversion of ground gravity data and satellite gravity gradients between Nepal and Bhutan: New insights on structural and seismic segmentation of the Himalayan arc. Physics and Chemistry of the Earth, 2021, 123, 103002.	1.2	3
67	Precise Locating of the Great 1897 Shillong Plateau Earthquake Using Teleseismic and Regional Seismic Phase Data. The Seismic Record, 2021, 1, 135-144.	1.3	3
68	The Representation of Earthquakes in Hindu Religion: A Literature Review to Improve Educational Communications in Nepal. Frontiers in Communication, 2021, 6, .	0.6	2
69	Structure of the crust and the lithosphere in the Himalaya-Tibet region and implications on the rheology and eclogitization of the India plate. Himalayan Journal of Sciences, 2008, 5, 65-66.	0.3	1
70	Columnar Joints. , 2014, , 1-7.		1
71	Constraining the Moho Depth Below Bhutan With Global-Phase Seismic Interferometry. Frontiers in Earth Science, 2021, 9, .	0.8	1
72	Editorial: Mountain Building. Frontiers in Earth Science, 2021, 9, .	0.8	0

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73	Columnar Joints. , 2015, , 328-333.		0
74	Imaging seismic wave-fields with AlpArray and neighboring European networks. International Journal of Earth Sciences, 2022, 111, 321-334.	0.9	0