Gyorgy Hetenyi

List of Publications by Year in Descending Order

69 papers	2,085 citations	23 h-index	44 g-index
104 ext. papers	2,480 ext. citations	4.8 avg, IF	4.81 L-index

#	Paper	IF	Citations
69	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	3.3	1
68	Precise Locating of the Great 1897 Shillong Plateau Earthquake Using Teleseismic and Regional Seismic Phase Data. *The Seismic Record*, **2021**, 1, 135-144		2
67	Building the Himalaya from tectonic to earthquake scales. *Nature Reviews Earth & Environment*, **2021**, 2, 251-268	30.2	11
66	Metamorphic transformation rate over large spatial and temporal scales constrained by geophysical data and coupled modelling. *Journal of Metamorphic Geology*, **2021**, 39, 1131	4.4	5
65	The first pan-Alpine surface-gravity database, a modern compilation that crosses frontiers. *Earth System Science Data*, **2021**, 13, 2165-2209	10.5	7
64	Transversely isotropic lower crust of Variscan central Europe imaged by ambient noise tomography of the Bohemian Massif. *Solid Earth*, **2021**, 12, 1051-1074	3.3	1
63	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,	3.5	3
62	Crustal Thinning From Orogen to Back-Arc Basin: The Structure of the Pannonian Basin Region Revealed by P-to-S Converted Seismic Waves. *Journal of Geophysical Research: Solid Earth*, **2021**, 126, e2020JB021309	3.6	1
61	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,	3.5	2
60	Shear wave splitting in the Alpine region. *Geophysical Journal International*, **2021**, 227, 1996-2015	2.6	3
59	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	3.1	1
58	Spatio-Temporal Evolution of Intermediate-Depth Seismicity Beneath the Himalayas: Implications for Metamorphism and Tectonics. *Frontiers in Earth Science*, **2021**, 9,	3.5	1
57	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	3	1
56	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	4.9	5
55	3D crustal structure of the Eastern Alpine region from ambient noise tomography. *Results in Geophysical Sciences*, **2020**, 1-4, 100006	1.4	4
54	New gravity data and 3-D density model constraints on the Ivrea Geophysical Body (Western Alps). *Geophysical Journal International*, **2020**, 222, 1977-1991	2.6	7
53	Stress and deformation mechanisms at a subduction zone: insights from 2-D thermomechanical numerical modelling. *Geophysical Journal International*, **2020**, 221, 1605-1625	2.6	9

52	Seismology at School in Nepal: A Program for Educational and Citizen Seismology Through a Low-Cost Seismic Network. *Frontiers in Earth Science*, **2020**, 8,	3.5	15
51	Sustainable densification of the deep crust. *Geology*, **2020**, 48, 673-677	5	12
50	Designing Inter- and Transdisciplinary Research on Mountains: What Place for the Unexpected?. *Mountain Research and Development*, **2020**, 40,	1.4	6
49	Impact of an educational program on earthquake awareness and preparedness in Nepal. *Geoscience Communication*, **2020**, 3, 279-290	0.7	5
48	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	2.3	6
47	Joint Geophysical-Petrological Modeling on the Ivrea Geophysical Body Beneath Valsesia, Italy: Constraints on the Continental Lower Crust. *Geochemistry, Geophysics, Geosystems*, **2020**, 21, e2020GC009397	2.6	2
46	Global quieting of high-frequency seismic noise due to COVID-19 pandemic lockdown measures. *Science*, **2020**, 369, 1338-1343	33.3	118
45	Seismic hazard and risk in Bhutan. *Natural Hazards*, **2020**, 104, 2339-2367	3	5
44	Source mechanism of a lower crust earthquake beneath the Himalayas and its possible relation to metamorphism. *Tectonophysics*, **2019**, 769, 128153	3.1	9
43	Moho depth analysis of the eastern Pannonian Basin and the Southern Carpathians from receiver functions. *Journal of Seismology*, **2019**, 23, 967-982	1.5	3
42	Density distribution across the Alpine lithosphere constrained by 3-D gravity modelling and relation to seismicity and deformation. *Solid Earth*, **2019**, 10, 2073-2088	3.3	10
41	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	2.6	14
40	The AlpArray Seismic Network: A Large-Scale European Experiment to Image the Alpine Orogen. *Surveys in Geophysics*, **2018**, 39, 1009-1033	7.6	79
39	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	1.7	12
38	Stress transfer and connectivity between the Bhutan Himalaya and the Shillong Plateau. *Tectonophysics*, **2018**, 744, 322-332	3.1	10
37	Spatial relation of surface faults and crustal seismicity: a first comparison in the region of Switzerland. *Acta Geodaetica Et Geophysica*, **2018**, 53, 439-461	1.7	6
36	Imaging the Moho and the Main Himalayan Thrust in Western Nepal With Receiver Functions. *Geophysical Research Letters*, **2018**, 45, 13,222	4.9	14
35	From mountain summits to roots: Crustal structure of the Eastern Alps and Bohemian Massif along longitude 13.3°E. *Tectonophysics*, **2018**, 744, 239-255	3.1	29

34	Along-strike variations in the Himalayan orogenic wedge structure in Bhutan from ambient seismic noise tomography. *Geochemistry, Geophysics, Geosystems*, **2017**, 18, 1483-1498	3.6	18
33	Seismotectonics of Bhutan: Evidence for segmentation of the Eastern Himalayas and link to foreland deformation. *Earth and Planetary Science Letters*, **2017**, 471, 54-64	5.3	44
32	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	3.6	27
31	The 2015 Gorkha earthquake: A large event illuminating the Main Himalayan Thrust fault. *Geophysical Research Letters*, **2016**, 43, 2517-2525	4.9	70
30	Joint approach combining damage and paleoseismology observations constrains the 1714 A.D. Bhutan earthquake at magnitude 8 ± 0.5. *Geophysical Research Letters*, **2016**, 43, 10,695-10,702	4.9	36
29	Segmentation of the Himalayas as revealed by arc-parallel gravity anomalies. *Scientific Reports*, **2016**, 6, 33866	4.9	43
28	Ground-based optical atomic clocks as a tool to monitor vertical surface motion. *Geophysical Journal International*, **2015**, 202, 1770-1774	2.6	27
27	Crustal structure of the Pannonian Basin: The AlCaPa and Tisza Terrains and the Mid-Hungarian Zone. *Tectonophysics*, **2015**, 646, 106-116	3.1	22
26	Quantifying the impact of mechanical layering and underthrusting on the dynamics of the modern India-Asia collisional system with 3-D numerical models. *Journal of Geophysical Research: Solid Earth* , **2014**, 119, 616-644	3.6	16
25	Active tectonics of the eastern Himalaya: New constraints from the first tectonic geomorphology study in southern Bhutan. *Geology*, **2014**, 42, 427-430	5	49
24	To conserve or not to conserve (mass in numerical models). *Terra Nova*, **2014**, 26, 372-376	3	4
23	Joint inversion of teleseismic and GOCE gravity data: application to the Himalayas. *Geophysical Journal International*, **2013**, 193, 149-160	2.6	27
22	Lateral uniformity of India Plate strength over central and eastern Nepal. *Geophysical Journal International*, **2013**, 195, 1481-1493	2.6	18
21	Flexure of the India plate underneath the Bhutan Himalaya. *Geophysical Research Letters*, **2013**, 40, 4225-4230	4.9	28
20	Scales of columnar jointing in igneous rocks: field measurements and controlling factors. *Bulletin of Volcanology*, **2012**, 74, 457-482	2.4	43
19	Geophysical applicability of atomic clocks: direct continental geoid mapping. *Geophysical Journal International*, **2012**, 191, 78-82	2.6	42
18	Internal flow structures in columnar jointed basalt from Hrepphólar, Iceland: II. Magnetic anisotropy and rock magnetic properties. *Bulletin of Volcanology*, **2012**, 74, 1667-1681	2.4	17
17	Origin of internal flow structures in columnar-jointed basalt from Hrepphólar, Iceland: I. Textural and geochemical characterization. *Bulletin of Volcanology*, **2012**, 74, 1645-1666	2.4	12

16	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	4.9	26
15	Incorporating metamorphism in geodynamic models: the mass conservation problem. *Geophysical Journal International*, **2011**, 186, 6-10	2.6	14
14	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	4.4	93
13	Melt migration in basalt columns driven by crystallization-induced pressure gradients. *Nature Communications*, **2011**, 2, 299	17.4	27
12	Discontinuous low-velocity zones in southern Tibet question the viability of the channel flow model. *Geological Society Special Publication*, **2011**, 353, 99-108	1.7	21
11	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	4.3	37
10	Underplating in the Himalaya-Tibet collision zone revealed by the Hi-CLIMB experiment. *Science*, **2009**, 325, 1371-4	33.3	523
9	Seismic velocities in Southern Tibet lower crust: a receiver function approach for eclogite detection. *Geophysical Journal International*, **2009**, 177, 1037-1049	2.6	78
8	Anomalously deep mantle transition zone below Central Europe: Evidence of lithospheric instability. *Geophysical Research Letters*, **2009**, 36,	4.9	28
7	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		1
6	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	1.5	22
5	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	5.3	143
4	The effective elastic thickness of the India Plate from receiver function imaging, gravity anomalies and thermomechanical modelling. *Geophysical Journal International*, **2006**, 167, 1106-1118	2.6	78
3	Imaging seismic wave-fields with AlpArray and neighboring European networks. *International Journal of Earth Sciences*,1	2.2	
2	Swiss-AlpArray temporary broadband seismic stations deployment and noise characterization. *Advances in Geosciences*,43, 15-29		18
1	Report on the ICDP workshop DIVE (Drilling the Ivrea Verbano zonE). *Scientific Drilling*,23, 47-56		12