

Ondřej Páček

List of Publications by Year in descending order

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74
papers

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186265

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docs citations

75
times ranked

1440
citing authors

#	ARTICLE	IF	CITATIONS
1	Enceladus as a potential oasis for life: Science goals and investigations for future explorations. <i>Experimental Astronomy</i> , 2022, 54, 809-847.	3.7	5
2	A numerical model of convective heat transfer in Titan's subsurface ocean. <i>Icarus</i> , 2022, 376, 114853.	2.5	14
3	The density structure of Titan's outer ice shell. <i>Icarus</i> , 2021, 364, 114466.	2.5	13
4	Cooling patterns in rotating thin spherical shells – Application to Titan's subsurface ocean. <i>Icarus</i> , 2020, 338, 113509.	2.5	28
5	Tidal dissipation in Enceladus' uneven, fractured ice shell. <i>Icarus</i> , 2019, 328, 218-231.	2.5	32
6	Long-term stability of Enceladus' uneven ice shell. <i>Icarus</i> , 2019, 319, 476-484.	2.5	59
7	Does Titan's long-wavelength topography contain information about subsurface ocean dynamics?. <i>Icarus</i> , 2018, 310, 149-164.	2.5	22
8	Viscoelastic relaxation of Enceladus' ice shell. <i>Icarus</i> , 2017, 291, 31-35.	2.5	17
9	Plume Activity and Tidal Deformation on Enceladus Influenced by Faults and Variable Ice Shell Thickness. <i>Astrobiology</i> , 2017, 17, 941-954.	3.0	35
10	Powering prolonged hydrothermal activity inside Enceladus. <i>Nature Astronomy</i> , 2017, 1, 841-847.	10.1	158
11	Enceladus's internal ocean and ice shell constrained from Cassini gravity, shape, and libration data. <i>Geophysical Research Letters</i> , 2016, 43, 5653-5660.	4.0	141
12	Water generation and transport below Europa's strike-slip faults. <i>Journal of Geophysical Research E: Planets</i> , 2016, 121, 2444-2462.	3.6	36
13	Effect of the tiger stripes on the deformation of Saturn's moon Enceladus. <i>Geophysical Research Letters</i> , 2016, 43, 7417-7423.	4.0	26
14	European Variscan orogenic evolution as an analogue of Tibetan-Himalayan orogen: Insights from petrology and numerical modeling. <i>Tectonics</i> , 2016, 35, 1760-1780.	2.8	34
15	Scoria cones on Mars: Detailed investigation of morphometry based on high-resolution digital elevation models. <i>Journal of Geophysical Research E: Planets</i> , 2015, 120, 1512-1527.	3.6	40
16	Mercury's low-degree geoid and topography controlled by insolation-driven elastic deformation. <i>Geophysical Research Letters</i> , 2015, 42, 7327-7335.	4.0	16
17	Despinning and shape evolution of Saturn's moon Iapetus triggered by a giant impact. <i>Icarus</i> , 2015, 252, 454-465.	2.5	5
18	Timing of water plume eruptions on Enceladus explained by interior viscosity structure. <i>Nature Geoscience</i> , 2015, 8, 601-604.	12.9	41

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19	Water transport in planetary ice shells by two-phase flow â€“ a parametric study. <i>Geophysical and Astrophysical Fluid Dynamics</i> , 2014, 108, 639-666.	1.2	8
20	Shape of scoria cones on Mars: Insights from numerical modeling of ballistic pathways. <i>Earth and Planetary Science Letters</i> , 2014, 406, 14-23.	4.4	28
21	Structure and dynamics of Titanâ€™s outer icy shell constrained from Cassini data. <i>Icarus</i> , 2014, 237, 16-28.	2.5	40
22	Ice melting and downward transport of meltwater by twoâ€“phase flow in Europa's ice shell. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 532-549.	3.6	46
23	Impact of tidal heating on the onset of convection in Enceladusâ€™s ice shell. <i>Icarus</i> , 2013, 226, 898-904.	2.5	25
24	Predicting surface dynamic topographies of stagnant lid planetary bodies. <i>Geophysical Journal International</i> , 2013, 195, 1494-1508.	2.4	7
25	The effect of variable thermal diffusivity on kinematic models of subduction. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	16
26	A numerical model of exhumation of the orogenic lower crust in the Bohemian Massif during the Variscan orogeny. <i>Studia Geophysica Et Geodaetica</i> , 2012, 56, 595-619.	0.5	11
27	Tidally-induced melting events as the origin of south-pole activity on Enceladus. <i>Icarus</i> , 2012, 219, 655-664.	2.5	60
28	Topography and geoid induced by a convecting mantle beneath an elastic lithosphere. <i>Geophysical Journal International</i> , 2012, 189, 55-72.	2.4	20
29	Deformation of an elastic shell with variable thickness: a comparison of different methods. <i>Geophysical Journal International</i> , 2012, 190, 726-744.	2.4	7
30	TIDALLY INDUCED THERMAL RUNAWAYS ON EXTRASOLAR EARTHS: IMPACT ON HABITABILITY. <i>Astrophysical Journal</i> , 2011, 728, 89.	4.5	50
31	Influences of lower-mantle properties on the formation of asthenosphere in oceanic upper mantle. <i>Journal of Earth Science (Wuhan, China)</i> , 2011, 22, 143-154.	3.2	2
32	Coupling of thermal evolution and despinning of early Iapetus. <i>Icarus</i> , 2010, 207, 959-971.	2.5	36
33	Coupling mantle convection and tidal dissipation: Applications to Enceladus and Earthâ€™like planets. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	46
34	Dynamical consequences in the lower mantle with the post-perovskite phase change and strongly depth-dependent thermodynamic and transport properties. <i>Earth and Planetary Science Letters</i> , 2010, 298, 229-243.	4.4	34
35	Implications of post-perovskite transport properties for coreâ€™ mantle dynamics. <i>Physics of the Earth and Planetary Interiors</i> , 2010, 180, 235-243.	1.9	24
36	Subducted slabs and lateral viscosity variations: effects on the long-wavelength geoid. <i>Geophysical Journal International</i> , 2009, 179, 813-826.	2.4	28

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37	Reduced oceanic seismic anisotropy by small-scale convection. <i>Earth and Planetary Science Letters</i> , 2009, 284, 622-629.	4.4	13
38	Is the long-wavelength geoid sensitive to the presence of postperovskite above the core-mantle boundary?. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	27
39	Solid tidal friction above a liquid water reservoir as the origin of the south pole hotspot on Enceladus. <i>Icarus</i> , 2008, 196, 642-652.	2.5	124
40	The dynamical influences from physical properties in the lower mantle and post-perovskite phase transition. <i>Geophysical Monograph Series</i> , 2007, , 249-270.	0.1	5
41	Dynamic models for mantle flow and seismic anisotropy in the North Atlantic region and comparison with observations. <i>Geochemistry, Geophysics, Geosystems</i> , 2007, 8, n/a-n/a.	2.5	18
42	Ā'DIPUS: a new tool to study the dynamics of planetary interiors. <i>Geophysical Journal International</i> , 2007, 170, 9-30.	2.4	49
43	Modeling the dynamic component of the geoid and topography of Venus. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	38
44	Effect of lateral viscosity variations in the core-mantle boundary region on predictions of the long-wavelength geoid. <i>Studia Geophysica Et Geodaetica</i> , 2006, 50, 217-232.	0.5	38
45	Effect of lateral viscosity variations in the top 300 km on the geoid and dynamic topography. <i>Geophysical Journal International</i> , 2003, 152, 566-580.	2.4	109
46	Can the 1D viscosity profiles inferred from postglacial rebound data be affected by lateral viscosity variations in the tectosphere?. <i>Geophysical Research Letters</i> , 2001, 28, 4403-4406.	4.0	10
47	Can lower mantle slab-like seismic anomalies be explained by thermal coupling between the upper and lower mantles?. <i>Geophysical Research Letters</i> , 1999, 26, 1501-1504.	4.0	21
48	A global geoid model with imposed plate velocities and partial layering. <i>Journal of Geophysical Research</i> , 1999, 104, 29055-29075.	3.3	51
49	Mantle viscosity derived by genetic algorithm using oceanic geoid and seismic tomography for whole-mantle versus blocked-flow situations. <i>Physics of the Earth and Planetary Interiors</i> , 1998, 107, 307-326.	1.9	37
50	Radial profiles of temperature and viscosity in the Earth's mantle inferred from the geoid and lateral seismic structure. <i>Earth and Planetary Science Letters</i> , 1998, 164, 607-615.	4.4	20
51	New Perspectives on Mantle Dynamics from High-resolution Seismic Tomographic Model P1200. , 1998, , 503-525.		3
52	Regional Correlation Analysis between Seismic Heterogeneity in the Lower Mantle and Subduction in the Last 180 Myr: Implications for Mantle Dynamics and Rheology. , 1998, , 527-537.		0
53	Can long-wavelength dynamical signatures be compatible with layered mantle convection?. <i>Geophysical Research Letters</i> , 1997, 24, 2091-2094.	4.0	21
54	Inferences of viscosity from the oceanic geoid: Indication of a low viscosity zone below the 660-km discontinuity. <i>Earth and Planetary Science Letters</i> , 1997, 151, 125-137.	4.4	77

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55	Effect of a Viscosity Interface at 1000 km Depth on Mantle Circulation. <i>Studia Geophysica Et Geodaetica</i> , 1997, 41, 297-306.	0.5	6
56	Influence of the Load Wavelength on the Permeability of a Viscosity Interface in the Mantle. <i>Studia Geophysica Et Geodaetica</i> , 1997, 41, 64-72.	0.5	3
57	Slope of the geoid spectrum and constraints on mantle viscosity stratification. <i>Geophysical Research Letters</i> , 1996, 23, 3063-3066.	4.0	23
58	Geodynamical implications from the correlation of surface geology and seismic tomographic structure. <i>Earth and Planetary Science Letters</i> , 1995, 136, 615-627.	4.4	20
59	Correlation analysis between subduction in the last 180 Myr and lateral seismic structure of the lower mantle: geodynamical implications. <i>Geophysical Research Letters</i> , 1995, 22, 1281-1284.	4.0	16
60	Large cold anomalies in the deep mantle and mantle instability in the Cretaceous. <i>Terra Nova</i> , 1994, 6, 238-245.	2.1	14
61	Lower mantle thermal structure deduced from seismic tomography, mineral physics and numerical modelling. <i>Earth and Planetary Science Letters</i> , 1994, 121, 385-402.	4.4	38
62	Comparison Between Newtonian and Non-Newtonian Flow Driven By Internal Loads. <i>Geophysical Journal International</i> , 1993, 112, 103-114.	2.4	29
63	GLOBAL GEODYNAMICS.. <i>Terra Nova</i> , 1993, 5, 573-590.	2.1	1
64	The stokes problem with 3D Newtonian rheology in a spherical shell. <i>Computer Physics Communications</i> , 1993, 76, 63-79.	7.5	13
65	Geophysical inferences of thermalâ€chemical structures in the lower mantle. <i>Geophysical Research Letters</i> , 1993, 20, 899-902.	4.0	57
66	Lateral variations of the mantle density and fluctuation of the core-mantle boundaryâ€Comment. <i>Physics of the Earth and Planetary Interiors</i> , 1992, 69, 207-213.	1.9	3
67	Lateral variations of the mantle density and fluctuation of the core-mantle boundary â€” Reply to Z.R. Ye. <i>Physics of the Earth and Planetary Interiors</i> , 1992, 69, 216.	1.9	0
68	Toroidal/poloidal energy partitioning and global lithospheric rotation during Cenozoic time. <i>Earth and Planetary Science Letters</i> , 1992, 109, 621-632.	4.4	46
69	Variational approach to modeling present-time mantle convection. <i>Studia Geophysica Et Geodaetica</i> , 1992, 36, 215-229.	0.5	1
70	Spectral variational approach to the non-Newtonian stokes problem in a spherical shell. <i>Computer Physics Communications</i> , 1992, 71, 56-70.	7.5	13
71	Spherical harmonic expansion of the Earth's crustal thickness up to degree and order 30. <i>Studia Geophysica Et Geodaetica</i> , 1991, 35, 151-165.	0.5	48
72	Mass heterogeneities and convection in the earth's mantle inferred from gravity and core-mantle boundary irregularities. <i>Pure and Applied Geophysics</i> , 1991, 135, 107-123.	1.9	6

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73	Three-dimensional modelling convection in the earth's mantle: Influence of the core-mantle boundary. <i>Studia Geophysica Et Geodaetica</i> , 1990, 34, 278-283.	0.5	1
74	Spherical tensor approach to the solution of the mantle stress problem. <i>Studia Geophysica Et Geodaetica</i> , 1989, 33, 177-197.	0.5	7