Maarten V De Hoop

List of Publications by Year
in descending order

30 papers	893 citations	840776 11 h-index	526287 27 g-index
31 all docs	31 docs citations	31 times ranked	1074 citing authors

#	ARTICLE	IF	CITATIONS
1	Machine learning for data-driven discovery in solid Earth geoscience. Science, 2019, 363, .	12.6	563
2	Clustering earthquake signals and background noises in continuous seismic data with unsupervised deep learning. Nature Communications, 2020, 11, 3972.	12.8	78
3	Lipschitz stability for the electrostatic inverse boundary value problem with piecewise linear conductivities. Journal Des Mathematiques Pures Et Appliquees, 2017, 107, 638-664.	1.6	30
4	Uniqueness and Lipschitz stability of an inverse boundary value problem for time-harmonic elastic waves. Inverse Problems, 2017, 33, 035013.	2.0	30
5	Nonlinear interaction of waves in elastodynamics and an inverse problem. Mathematische Annalen, 2020, 376, 765-795.	1.4	25
6	Mapping Mantle Transition Zone Discontinuities Beneath the Central Pacific With Array Processing of <i>SS</i> Precursors. Journal of Geophysical Research: Solid Earth, 2017, 122, 10,364.	3.4	21
7	Lipschitz stability for a piecewise linear Schrödinger potential from local Cauchy data. Asymptotic Analysis, 2018, 108, 115-149.	0.5	21
8	A weight-adjusted discontinuous Galerkin method for the poroelastic wave equation: Penalty fluxes and micro-heterogeneities. Journal of Computational Physics, 2020, 403, 109061.	3.8	21
9	Parsimonious Seismic Tomography with Poisson Voronoi Projections: Methodology and Validation. Seismological Research Letters, 2020, 91, 343-355.	1.9	16
10	Compositional heterogeneity near the base of the mantle transition zone beneath Hawaii. Nature Communications, 2018, 9, 1266.	12.8	15
11	Computing Planetary Interior Normal Modes with a Highly Parallel Polynomial Filtering Eigensolver. , 2018, , .		12
12	Scattering Control for the Wave Equation with Unknown Wave Speed. Archive for Rational Mechanics and Analysis, 2019, 231, 409-464.	2.4	11
13	Analysis of a Model of Elastic Dislocations in Geophysics. Archive for Rational Mechanics and Analysis, 2020, 236, 71-111.	2.4	7
14	Inverse Problem of Travel Time Difference Functions on a Compact Riemannian Manifold with Boundary. Journal of Geometric Analysis, 2019, 29, 3308-3327.	1.0	6
15	Uniqueness for a seismic inverse source problem modeling a subsonic rupture. Communications in Partial Differential Equations, 2016, 41, 1895-1917.	2.2	4
16	Higher-order Hamilton–Jacobi perturbation theory for anisotropic heterogeneous media: dynamic ray tracing in Cartesian coordinates. Geophysical Journal International, 2019, 216, 2044-2070.	2.4	4
17	Recovery of discontinuous Lamé parameters from exterior Cauchy data. Communications in Partial Differential Equations, 2021, 46, 680-715.	2.2	4
18	A high order discontinuous Galerkin method for the symmetric form of the anisotropic viscoelastic wave equation. Computers and Mathematics With Applications, 2021, 99, 113-132.	2.7	4

#	ARTICLE	IF	CITATIONS
19	Recovery of wave speeds and density of mass across a heterogeneous smooth interface from acoustic and elastic wave reflection operators. GEM - International Journal on Geomathematics, 2022, 13, 1.	1.6	4
20	A numerical study of multi-parameter full waveform inversion with iterative regularization using multi-frequency vibroseis data. Computational Geosciences, 2020, 24, 89-107.	2.4	3
21	Semiclassical inverse spectral problem for seismic surface waves in isotropic media: part II. Rayleigh waves. Inverse Problems, 2020, 36, 075016.	2.0	3
22	A multi-rate iterative coupling scheme for simulating dynamic ruptures and seismic waves generation in the prestressed earth. Journal of Computational Physics, 2020, 405, 109098.	3.8	2
23	Planetary Normal Mode Computation: Parallel Algorithms, Performance, and Reproducibility. IEEE Transactions on Parallel and Distributed Systems, 2021, 32, 2609-2622.	5.6	2
24	Recurrent Scattering Network Detects Metastable Behavior in Polyphonic Seismo-Volcanic Signals for Volcano Eruption Forecasting. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-23.	6.3	2
25	A Non-perturbative Approach to Computing Seismic Normal Modes in Rotating Planets. Journal of Scientific Computing, 2022, 91, 1.	2.3	2
26	Recovery of Material Parameters in Transversely Isotropic Media. Archive for Rational Mechanics and Analysis, 2020, 235, 141-165.	2.4	1
27	Higher-order Hamiltonâ€"Jacobi perturbation theory for anisotropic heterogeneous media: dynamic ray tracing in ray-centred coordinates. Geophysical Journal International, 2021, 226, 1262-1307.	2.4	1
28	Inverse problem for the Rayleigh system with spectral data. Journal of Mathematical Physics, 2022, 63, .	1.1	1
29	Plane-wave analysis of a hyperbolic system of equations with relaxation in $\mathbb{R}^d$. Communications in Mathematical Sciences, 2019, 17, 61-79.	1.0	0
30	Interconnected Hierarchical Structures for Fast Direct Elliptic Solution. Journal of Scientific Computing, 2022, 91, 1.	2.3	0