# Helene Barucq

List of Publications by Year
in descending order

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|---|---|---|---|
| 50 papers | 365 citations | 840585 11 h-index | 940416 16 g-index |
| 50 all docs | 50 docs citations | 50 times ranked | 279 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Outgoing modal solutions for Galbrun's equation in helioseismology. Journal of Differential Equations, 2021, 286, 494-530. | 1.1 | 1 |
| 2 | Local strategies for improving the conditioning of the plane-wave Ultra-Weak Variational Formulation. Journal of Computational Physics, 2021, 441, 110449. | 1.9 | 2 |
| 3 | Asymptotic behavior of acoustic waves scattered by very small obstacles. ESAIM: Mathematical Modelling and Numerical Analysis, 2021, 55, S705-S731. | 0.8 | 3 |
| 4 | An effective numerical strategy for retrieving all characteristic parameters of an elastic scatterer from its FFP measurements. Journal of Computational Physics, 2020, 419, 109683. | 1.9 | 2 |
| 5 | High-Order Locally A-Stable Implicit Schemes for Linear ODEs. Journal of Scientific Computing, 2020, 85, 1. | 1.1 | 1 |
| 6 | Outgoing solutions and radiation boundary conditions for the ideal atmospheric scalar wave equation in helioseismology. ESAIM: Mathematical Modelling and Numerical Analysis, 2020, 54, 1111-1138. | 0.8 | 7 |
| 7 | Full reciprocity-gap waveform inversion enabling sparse-source acquisition. Geophysics, 2020, 85, R461-R476. | 1.4 | 11 |
| 8 | A priori estimates of attraction basins for velocity model reconstruction by time-harmonic full-waveform inversion and data-space reflectivity formulation. Geophysics, 2020, 85, R223-R241. | 1.4 | 6 |
| 9 | Eigenvector models for solving the seismic inverse problem for the Helmholtz equation. Geophysical Journal International, 2020, 221, 394-414. | 1.0 | 9 |
| 10 | Efficient and Accurate Algorithm for the Full Modal Green's Kernel of the Scalar Wave Equation in Helioseismology. SIAM Journal on Applied Mathematics, 2020, 80, 2657-2683. | 0.8 | 3 |
| 11 | Oceanic Surface Current Approximation from Sparse Data. , 2020, , . | | 0 |
| 12 | Mathematical analysis and solution methodology for an inverse spectral problem arising in the design of optical waveguides. Inverse Problems in Science and Engineering, 2019, 27, 1081-1119. | 1.2 | 0 |
| 13 | A priori estimates of attraction basins for nonlinear least squares, with application to Helmholtz seismic inverse problem. Inverse Problems, 2019, 35, 115004. | 1.0 | 12 |
| 14 | Trefftz-Discontinuous Galerkin Approach for Solving Elastodynamic Problem. Lecture Notes in Computational Science and Engineering, 2019, , 145-153. | 0.1 | 0 |
| 15 | Mathematical Determination of the FrÃ©chet Derivative with Respect to the Domain for a Fluid-Structure Scattering Problem: Case of Polygonal-Shaped Domains. SIAM Journal on Mathematical Analysis, 2018, 50, 1010-1036. | 0.9 | 1 |
| 16 | Numerical robustness of single-layer method with Fourier basis for multiple obstacle acoustic scattering in homogeneous media. Wave Motion, 2018, 77, 40-63. | 1.0 | 3 |
| 17 | Highâ€order PadÃ© and singly diagonally Rungeâ€Kutta schemes for linear ODEs, application to wave propagation problems. Numerical Methods for Partial Differential Equations, 2018, 34, 760-798. | 2.0 | 4 |
| 18 | Sensitivity kernels for time-distance helioseismology. Astronomy and Astrophysics, 2018, 616, A156. | 2.1 | 11 |

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|---|---|---|---|
| 19 | Atmospheric radiation boundary conditions for the Helmholtz equation. ESAIM: Mathematical Modelling and Numerical Analysis, 2018, 52, 945-964. | 0.8 | 10 |
| 20 | Localization of small obstacles from back-scattered data at limited incident angles with full-waveform inversion. Journal of Computational Physics, 2018, 370, 1-24. | 1.9 | 8 |
| 21 | Characterization of partial derivatives with respect to material parameters in a fluidâ€“solid interaction problem. Journal of Mathematical Analysis and Applications, 2018, 465, 903-927. | 0.5 | 2 |
| 22 | Signal and noise in helioseismic holography. Astronomy and Astrophysics, 2018, 620, A136. | 2.1 | 13 |
| 23 | FrÃ©chet differentiability of the elastoâ€acoustic scattered field with respect to Lipschitz domains. Mathematical Methods in the Applied Sciences, 2017, 40, 404-414. | 1.2 | 4 |
| 24 | A symmetric Trefftz-DG formulation based on a local boundary element method for the solution of the Helmholtz equation. Journal of Computational Physics, 2017, 330, 1069-1092. | 1.9 | 20 |
| 25 | Computational helioseismology in the frequency domain: acoustic waves in axisymmetric solar models with flows. Astronomy and Astrophysics, 2017, 600, A35. | 2.1 | 39 |
| 26 | Stability analysis of heterogeneous Helmholtz problems and finite element solution based on propagation media approximation. Mathematics of Computation, 2016, 86, 2129-2157. | 1.1 | 24 |
| 27 | Absorbing Boundary Conditions for 3D elastic TTI modeling. , 2015, , . | | 0 |
| 28 | Absorbing Boundary Conditions for 2D Tilted Transverse Isotropic elastic media. ESAIM Proceedings and Surveys, 2014, 45, 400-409. | 0.5 | 5 |
| 29 | Efficient DGâ€like formulation equipped with curved boundary edges for solving elastoâ€acoustic scattering problems. International Journal for Numerical Methods in Engineering, 2014, 98, 747-780. | 1.5 | 16 |
| 30 | Characterization of the FrÃ©chet derivative of the elasto-acoustic field with respect to Lipschitz domains. Journal of Inverse and Ill-Posed Problems, 2014, 22, 1-8. | 0.5 | 8 |
| 31 | On the existence and the uniqueness of the solution of a fluidâ€“structure interaction scattering problem. Journal of Mathematical Analysis and Applications, 2014, 412, 571-588. | 0.5 | 11 |
| 32 | On the Influence of Curvature on Transmission Conditions. Lecture Notes in Computational Science and Engineering, 2014, , 323-331. | 0.1 | 2 |
| 33 | LONG-TERM STABILITY ANALYSIS OF ACOUSTIC ABSORBING BOUNDARY CONDITIONS. Mathematical Models and Methods in Applied Sciences, 2013, 23, 2129-2154. | 1.7 | 2 |
| 34 | Upscaling for the Laplace problem using a discontinuous Galerkin method. Journal of Computational and Applied Mathematics, 2013, 240, 192-203. | 1.1 | 1 |
| 35 | Performance Analysis of a High-Order Discontinuous Galerkin Method Application to the Reverse Time Migration. Communications in Computational Physics, 2012, 11, 660-673. | 0.7 | 7 |
| 36 | EXPONENTIAL DECAY OF HIGH-ORDER SPURIOUS PROLATE SPHEROIDAL MODES INDUCED BY A LOCAL APPROXIMATE DTN EXTERIOR BOUNDARY CONDITION. Progress in Electromagnetics Research B, 2012, 37, 1-19. | 0.7 | 1 |

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|---|---|---|---|
| 37 | Full Aperture Reconstruction of the Acoustic Far-Field Pattern from Few Measurements. Communications in Computational Physics, 2012, 11, 647-659. | 0.7 | 4 |
| 38 | Micro-Differential Boundary Conditions Modelling the Absorption of Acoustic Waves by 2D Arbitrarily-Shaped Convex Surfaces. Communications in Computational Physics, 2012, 11, 674-690. | 0.7 | 9 |
| 39 | Non-reflecting boundary condition on ellipsoidal boundary. Numerical Analysis and Applications, 2012, 5, 109-115. | 0.2 | 3 |
| 40 | Numerical performances of a hybrid localâ€time stepping strategy applied to the reverse time migration. Geophysical Prospecting, 2011, 59, 907-919. | 1.0 | 10 |
| 41 | A multi-step procedure for enriching limited two-dimensional acoustic far-field pattern measurements. Journal of Inverse and Ill-Posed Problems, 2010, 18, . | 0.5 | 6 |
| 42 | Well-posedness and exponential stability of Maxwell-like systems coupled with strongly absorbing layers. Journal Des Mathematiques Pures Et Appliquees, 2007, 87, 253-273. | 0.8 | 6 |
| 43 | Approximation by generalized impedance boundary conditions of a transmission problem in acoustic scattering. ESAIM: Mathematical Modelling and Numerical Analysis, 2005, 39, 1041-1059. | 0.8 | 12 |
| 44 | Some existence-uniqueness results for a class of one-dimensional nonlinear Biot models. Nonlinear Analysis: Theory, Methods & Applications, 2005, 61, 591-612. | 0.6 | 11 |
| 45 | On nonlinear Biot's consolidation models. Nonlinear Analysis: Theory, Methods & Applications, 2005, 63, e985-e995. | 0.6 | 14 |
| 46 | Construction of local boundary conditions for an eigenvalue problem using micro-local analysis: application to optical waveguide problems. Journal of Computational Physics, 2004, 193, 666-696. | 1.9 | 4 |
| 47 | A new family of first-order boundary conditions for the Maxwell system: derivation, well-posedness and long-time behavior. Journal Des Mathematiques Pures Et Appliquees, 2003, 82, 67-88. | 0.8 | 12 |
| 48 | A Family of First-Order Conditions for the Long-Time Stability of the Maxwell System. , 2003, , 377-382. | | 0 |
| 49 | Microlocal Diagonalization of Strictly Hyperbolic Pseudodifferential Systems and Application to the Design of Radiation Conditions in Electromagnetism. SIAM Journal on Applied Mathematics, 2001, 61, 1877-1905. | 0.8 | 21 |
| 50 | Une formulation mixte convergente pour le systÃ¨me de Stokes tridimensionnel. Comptes Rendus Mathematique, 1999, 328, 935-938. | 0.5 | 4 |