

# Frédérique Le Louër

## List of Publications by Year in descending order

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25  
papers

367  
citations

623734

14  
h-index

794594

19  
g-index

25  
all docs

25  
docs citations

25  
times ranked

152  
citing authors

#	ARTICLE	IF	CITATIONS
1	Topological sensitivity analysis revisited for time-harmonic wave scattering problems. Part I: the free space case. Engineering Computations, 2022, 39, 232-271.	1.4	7
2	Topological sensitivity analysis revisited for time-harmonic wave scattering problems. Part II: recursive computations by the boundary integral equation method. Engineering Computations, 2022, 39, 272-312.	1.4	3
3	Topological Imaging Methods for the Iterative Detection of Multiple Impedance Obstacles. Journal of Mathematical Imaging and Vision, 2022, 64, 321-340.	1.3	1
4	An Inverse Parameter Problem with Generalized Impedance Boundary Condition for Two-Dimensional Linear Viscoelasticity. SIAM Journal on Applied Mathematics, 2021, 81, 1668-1690.	1.8	0
5	Analytical preconditioners for Neumann elastodynamic boundary element methods. SN Partial Differential Equations and Applications, 2021, 2, 1.	0.6	2
6	Thin layer approximations in mechanical structures: The Dirichlet boundary condition case. Comptes Rendus Mathematique, 2019, 357, 576-581.	0.3	3
7	Detection of multiple impedance obstacles by non-iterative topological gradient based methods. Journal of Computational Physics, 2019, 388, 534-560.	3.8	15
8	When topological derivatives met regularized Gauss-Newton iterations in holographic 3D imaging. Journal of Computational Physics, 2019, 388, 224-251.	3.8	21
9	Shape Sensitivity Analysis for Elastic Structures with Generalized Impedance Boundary Conditions of the Wentzell Type”Application to Compliance Minimization. Journal of Elasticity, 2019, 136, 17-53.	1.9	4
10	Topological Sensitivity for Solving Inverse Multiple Scattering Problems in Three-Dimensional Electromagnetism. Part II: Iterative Method. SIAM Journal on Imaging Sciences, 2018, 11, 734-769.	2.2	14
11	Fast iterative boundary element methods for high-frequency scattering problems in 3D elastodynamics. Journal of Computational Physics, 2017, 341, 429-446.	3.8	26
12	Topological Sensitivity for Solving Inverse Multiple Scattering Problems in Three-dimensional Electromagnetism. Part I: One Step Method. SIAM Journal on Imaging Sciences, 2017, 10, 1291-1321.	2.2	36
13	Generalized impedance boundary conditions and shape derivatives for 3D Helmholtz problems. Mathematical Models and Methods in Applied Sciences, 2016, 26, 1995-2033.	3.3	4
14	Material derivatives of boundary integral operators in electromagnetism and application to inverse scattering problems. Inverse Problems, 2016, 32, 095003.	2.0	11
15	Well-posed boundary integral formulations for high-frequency elastic scattering problems in three dimensions. Mathematical Methods in the Applied Sciences, 2015, 38, 1705-1733.	2.3	22
16	A domain derivative-based method for solving elastodynamic inverse obstacle scattering problems. Inverse Problems, 2015, 31, 115006.	2.0	15
17	Approximate local Dirichlet-to-Neumann map for three-dimensional time-harmonic elastic waves. Computer Methods in Applied Mechanics and Engineering, 2015, 297, 62-83.	6.6	23
18	A high order spectral algorithm for elastic obstacle scattering in three dimensions. Journal of Computational Physics, 2014, 279, 1-17.	3.8	21

#	ARTICLE	IF	CITATIONS
19	Spectrally accurate numerical solution of hypersingular boundary integral equations for three-dimensional electromagnetic wave scattering problems. <i>Journal of Computational Physics</i> , 2014, 275, 662-666.	3.8	17
20	On the Fréchet Derivative in Elastic Obstacle Scattering. <i>SIAM Journal on Applied Mathematics</i> , 2012, 72, 1493-1507.	1.8	20
21	Shape Derivatives of Boundary Integral Operators in Electromagnetic Scattering. Part I: Shape Differentiability of Pseudo-homogeneous Boundary Integral Operators. <i>Integral Equations and Operator Theory</i> , 2012, 72, 509-535.	0.8	29
22	Shape Derivatives of Boundary Integral Operators in Electromagnetic Scattering. Part II: Application to Scattering by a Homogeneous Dielectric Obstacle. <i>Integral Equations and Operator Theory</i> , 2012, 73, 17-48.	0.8	26
23	On the Kleinman-Martin Integral Equation Method for Electromagnetic Scattering by a Dielectric Body. <i>SIAM Journal on Applied Mathematics</i> , 2011, 71, 635-656.	1.8	20
24	On the use of Lamb modes in the linear sampling method for elastic waveguides. <i>Inverse Problems</i> , 2011, 27, 055001.	2.0	15
25	A spectrally accurate method for the direct and inverse scattering problems by multiple 3D dielectric obstacles. <i>ANZIAM Journal</i> , 0, 59, 1.	0.0	12