

# Mario Bebendorf

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/10786648/publications.pdf>

Version: 2024-02-01

11  
papers

1,043  
citations

1163117

8  
h-index

1372567

10  
g-index

11  
all docs

11  
docs citations

11  
times ranked

518  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Approximation of boundary element matrices. <i>Numerische Mathematik</i> , 2000, 86, 565-589.   | 1.9  | 641       |
| 2  | Existence of $\tau$ -matrix approximants to the inverse FE-matrix of elliptic operators with $L^2$ -coefficients. <i>Numerische Mathematik</i> , 2003, 95, 1-28.                                      | 1.9  | 178       |
| 3  | Efficient inversion of the Galerkin matrix of general second-order elliptic operators with nonsmooth coefficients. <i>Mathematics of Computation</i> , 2004, 74, 1179-1200.                           | 2.1  | 83        |
| 4  | Why Finite Element Discretizations Can Be Factored by Triangular Hierarchical Matrices. <i>SIAM Journal on Numerical Analysis</i> , 2007, 45, 1472-1494.  | 2.3  | 53        |
| 5  | Low-Rank Approximation of Elliptic Boundary Value Problems with High-Contrast Coefficients. <i>SIAM Journal on Mathematical Analysis</i> , 2016, 48, 932-949.   | 1.9  | 38        |
| 6  | Fast BEM for Eddy-Current Problems Using H-Matrices and Adaptive Cross Approximation. <i>IEEE Transactions on Magnetics</i> , 2007, 43, 1269-1272.  | 2.1  | 17        |
| 7  | Approximate Inverse Preconditioning of Finite Element Discretizations of Elliptic Operators with Nonsmooth Coefficients. <i>SIAM Journal on Matrix Analysis and Applications</i> , 2006, 27, 909-929. | 1.4  | 15        |
| 8  | $\mathcal{H}$ -Matrix-Based Operator Preconditioning for Full Maxwell at Low Frequencies. <i>IEEE Transactions on Magnetics</i> , 2010, 46, 3193-3196.  | 2.1  | 9         |
| 9  | Hierarchical Matrix Preconditioning for Low-Frequency "Full-Maxwell Simulations. <i>Proceedings of the IEEE</i> , 2013, 101, 423-433.   | 21.3 | 8         |
| 10 | Block-Adaptive Cross Approximation of Discrete Integral Operators. <i>Computational Methods in Applied Mathematics</i> , 2021, 21, 13-29.   | 0.8  | 1         |
| 11 | Hierarchical matrix method for a class of diffusion-dominated partial integro-differential equations. <i>Numerical Linear Algebra With Applications</i> , 2022, 29, e2410.                            | 1.6  | 0         |