

Daniele Bertaccini, Pasqua D'Ambra, Fabio Durastante, and Salvatore Filippone. Why diffusion-based preconditioning of richards equation works: Spectral analysis and computational experiments at very large scale. *Numerical Linear Algebra with Applications*, 31(1):e2523, 2024. doi: <https://doi.org/10.1002/nla.2523>. URL <https://onlinelibrary.wiley.com/doi/abs/10.1002/nla.2523>.

Pasqua D'Ambra, Fabio Durastante, Salvatore Filippone, Stefano Massei, and Stephen Thomas. Optimal polynomial smoothers for parallel AMG. *Numerical Algorithms*, 100(4): 1783–1812, Dec 2025. ISSN 1572-9265. doi: 10.1007/s11075-025-02117-6. URL <https://doi.org/10.1007/s11075-025-02117-6>.

Herbert Owen, Oriol Lehmkuhl, Pasqua D'Ambra, Fabio Durastante, and Salvatore Filippone. Alya toward exascale: algorithmic scalability using psctoolkit. *The Journal of Supercomputing*, 80(10):13533–13556, Jul 2024. ISSN 1573-0484. doi: 10.1007/s11227-024-05989-y. URL <https://doi.org/10.1007/s11227-024-05989-y>.