

## Publications by Jan Nordström

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### 5 most cited publications

(Google Scholar, Scopus, Web of Science)

1. M. H. Carpenter, J. Nordström & D. Gottlieb, A Stable and Conservative Interface Treatment of Arbitrary Spatial Accuracy, *Journal of Computational Physics*, Vol. 148 No. 2, pp. 341-365, 1999. Number of citations: (353, 252, 176)
2. K. Mattson & J. Nordström, Summation by parts operators for finite difference approximations of second derivatives, *Journal of Computational Physics*, Vol. 199, pp. 503-540, 2004. Number of citations: (247, 170, 129)
3. M. Svärd & J. Nordström, On the Order of Accuracy for Difference Approximations of Initial-Boundary Value Problems, *Journal of Computational Physics*, Vol. 218, pp. 333-352, 2006. Number of citations: (158, 97, 83)
4. J. Nordström & M. H. Carpenter, Boundary and Interface Conditions for High Order Finite Difference Methods Applied to the Euler and Navier Stokes Equations, *Journal of Computational Physics*, Vol. 152 No. 2, pp. 621-645, 1999. Number of citations: (154, 105, 63)
5. M. Svärd, M. H. Carpenter & J. Nordström, A Stable High-Order Finite Difference Scheme for the Compressible Navier-Stokes Equations, far-field boundary conditions, *Journal of Computational Physics*, Volume 225, Issue 1, Pages 1020-1038, 2007. Number of citations: (150, 120, 76)

### h index

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96. O. O'reilly, E.M. Dunham & J. Nordström. Simulation of wave propagation along fluid-filled cracks using high-order summation-by-parts operators and implicit-explicit time stepping. Accepted in *SIAM Journal of Scientific Computing*.

95. M. Svård & J. Nordström, Response to "Convergence of Summation-by-Parts Finite Difference Methods for the Wave equation". Accepted in *Journal of Scientific Computing*.
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93. S. Eriksson & J. Nordström, Exact Non-Reflecting Boundary Conditions Revisited: Well-Posedness and Stability. Accepted in *Foundations of Computational Mathematics*.
92. J. Nordström & A. Ruggiu, On Conservation and Stability Properties for Summation-By-Parts Schemes, *Journal of Computational Physics*, Vol 344, pp. 451-464, 2017.
91. J. Nordström & F. Ghasemi, On the relation between conservation and dual consistency for summation-by-parts schemes, *Journal of Computational Physics*, Vol 344, pp. 437-439, 2017.
90. Y. T. Delorme, K. Puria, J. Nordström, V. Linders, S. Dong & S. H. Frankel, A Simple and Efficient Incompressible Navier-Stokes Solver for Unsteady Complex Geometry Flows on Truncated Domains, *Computers & Fluids*, Vol 150, pp. 84-94, 2017.
89. V. Linders, M. Kupiainen & J. Nordström, Summation-by-Parts Operators with Minimal Dispersion Error for Coarse Grid Flow Calculations, *Journal of Computational Physics*, Volume 340, pp. 160-176, 2017.
88. S. Nikkar & J. Nordström, A Fully Discrete, Stable and Conservative Summation-by-Parts Formulation for Deforming Interfaces, *Journal of Computational Physics*, Volume 339, pp. 500-524, 2017.
87. J. Nordström, A Roadmap to Well Posed and Stable Problems in Computational Physics, *Journal of Scientific Computing*, Volume 71, Issue 1, pp. 365-385, 2017.
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## Books

1. P. Pettersson, G. Iaccarino & J. Nordström, Polynomial Chaos Methods for Hyperbolic Partial Differential Equations, Book in Mathematical Engineering, DOI: 10.1007/978-3-319-10714-1, Springer International Publishing, 2015.

### **Book chapters**

10. P. Eliasson, M. Kupiainen & J. Nordström, Higher Order Accurate Solutions for Flow in a Cavity: Experiences and Lessons Learned, Spectral and High Order Methods for Partial Differential Equations ICOSAHOM 2014, Lecture Notes in Computational Science and Engineering, No. 106, 189-196, 2015.
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#### Conference papers

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