

LIST OF PUBLICATIONS

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COMPLETED ARTICLES

[Published, accepted, or submitted]

- [13] JINCHAO XU, YUKUN LI, SHONAN WU, ARTHUR BOUSQUET *On the accuracy of partially implicit schemes for phase field modeling 2018* submitted
- [12] ARTHUR BOUSQUET, XIAOZHE HU, MAXIMILLIAM METTI, JINCHAO XU *Newton-type solvers for some drift-diffusion and electrokinetic equations 2018* SIAM Journal on Scientific Computing
- [11] ARTHUR BOUSQUET, BOGDAN DRAGNEA, MANEL TAYACHI, AND ROGER TEMAM *Towards the modeling of nanoindentation of virus shells: Do substrate adhesion and geometry matter?* Physica D: Nonlinear Phenomena Vol. **336** pp. 0167–2789 2016
DOI: [10.1016/j.physd.2016.06.013](https://doi.org/10.1016/j.physd.2016.06.013)
- [10] MERCEDES HERNANDO-PREZ, CHENG ZENG, LILLY DELALANDE, IRINA B. TSVETKOVA, ARTHUR BOUSQUET, MANEL TAYACHI-PIGEONNAT, ROGER MEYER TEMAM , AND BOGDAN G. DRAGNEA *Nanoindentation of Isometric Viruses on Deterministically Corrugated Substrates 2015* The Journal of Physical Chemistry B
DOI: [10.1021/acs.jpcc.5b08362](https://doi.org/10.1021/acs.jpcc.5b08362)
- [9] A. BOUSQUET , M. CHEKROUN, Y. HONG, R. TEMAM, AND J. TRIBBIA *Numerical weather prediction in two dimensions with topography, using a finite volume method* Math. Clim. Weather Forecast 2015 Vol. **1**
DOI: [10.1515/mcwf-2015-0005](https://doi.org/10.1515/mcwf-2015-0005)
- [8] A. BOUSQUET AND A. HUANG *Finite volume approximation of the linearized shallow water equations in hyperbolic mode* Int. J. Numer. Anal. Model. Vol. **11** (no. 4) pp. 816–840 2014
- [7] A. BOUSQUET, M. MARION, AND R. TEMAM *Finite Volume Multilevel Approximation of the Shallow Water Equations with a Time Explicit Scheme* Int. J. Numer. Anal. Model. Vol. **11** (no. 4) pp. 762–786 2014
- [6] A. BOUSQUET, G.-M. GIE, Y. HONG, AND J. LAMINIE, *A Higher Order Finite Volume Resoluton Method for a System Related to he Inviscid Primitive Equations in a Complex Doamin*, Numerische Math Vol. **128** pp. 431–461
DOI: [10.1007/s00211-014-0622-4](https://doi.org/10.1007/s00211-014-0622-4)2014
- [5] A. BOUSQUET, M. COTI ZELATI, AND R. TEMAM, *Phase transition models in atmospheric dynamics* Milan Journal of Mathematics Vol. **82** pp. 99–128 2014
DOI: [10.1007/s00032-014-0213-y](https://doi.org/10.1007/s00032-014-0213-y)
- [4] A. BOUSQUET, M. MARION, M. PETCU, AND R. TEMAM, *Multilevel finite volume methods and boundary conditions for geophysical flows*, Computers & Fluids, Vol. **74**, pp. 66–90, 2013.
DOI: [10.1016/j.compfluid.2013.01.001](https://doi.org/10.1016/j.compfluid.2013.01.001)
- [3] A. BOUSQUET, M. MARION, AND R. TEMAM, *Finite Volume Multilevel Approximation of the Shallow Water Equations*, Chin. Ann. Math., Vol. **34**, pp. 1–28, 2013.
DOI: [10.1007/s11401-012-0760-x](https://doi.org/10.1007/s11401-012-0760-x)

- [2] A. BOUSQUET, M. PETU, M.-C. SHIUE, R. TEMAM, AND J. TRIBBIA, *Boundary Conditions for Limited Area Models Based on the Shallow Water Equations*, Commun. Comput. Phys, Vol. **14**, pp. 664–702, 2013.
DOI: [10.4208/cicp.070312.061112a](https://doi.org/10.4208/cicp.070312.061112a)
- [1] K. ADAMY, A. BOUSQUET, S. FAURE, J. LAMINIE, AND R. TEMAM, *A multilevel method for finite volume discretization of the two-dimensional nonlinear shallow-water equations*, Ocean Modelling, Vol. **33**, pp. 235–256, 2010.
DOI: [10.1016/j.ocemod.2010.02.006](https://doi.org/10.1016/j.ocemod.2010.02.006)