Dunca Argus Adrian - List of Publications

A. RESEARCH ARTICLES (PUBLISHED IN ISI JOURNALS)

1. L. Berselli, **A. Dunca**, R. Lewandowski, D. Nguyen, *Modeling error of alpha-models of turbulence on a two-dimensional torus*, **DCDS-B**, 26(2021),4613-4643,WOS:000652031300001

2. **A. Dunca**, *Estimates of the discrete van Cittert deconvolution error in approximate deconvolution models of turbulence in bounded domains*, **Appl. Num. Math**., 134(2018), 1-10, WOS:000447092000001

3. **A. Dunca**, *Estimates of the Modeling Error of the alpha-Models of Turbulence in Two and Three Space Dimensions*, **J. of Math Fluid Mech**., 20(2018), 1123-1135, WOS:000441287600011

4. **A. Dunca**, *Numerical analysis and testing of a stable and convergent finite element scheme for approximate deconvolution turbulence models*, **Comp. & Math. Appl**., 75(2018), 690-702, WOS:000427333100023

5. **A. Dunca**, *On an optimal finite element scheme for the advection equation*, **J. of Comp. and Appl. Math**., 311(2017), 522-528, WOS:000386403000040

6. **A. Dunca***, On an energy inequality for the approximate deconvolution models*, **Nonlin. Anal.-Real World Appl**., 32(2016), 294-300, WOS:000380079900017

7. T. Kim, **A. Dunca**, L. Rebholz, E. Fried, *Energy analysis and improved regularity estimates for multiscale deconvolution models of incompressible flows*, **Math. Meth. Appl. Sci**., 38(2015) 4199-4209, WOS:000368250600045

8. **A. Dunca**, M. Neda, *On the Vreman filter based stabilization for the advection equation*, **Appl. Math. Comput.** , 269(2015), 379-388, WOS:000361771500033

9. V. Cuff, **A. Dunca**, C. Manica, L. Rebholz*, The reduced order NS-alpha model for incompressible flow: theory, numerical analysis and benchmark testing*, **ESAIM-Math. Model. Num**., 49(2015), 641-662, WOS:000354794100002

10. **A. Dunca**, M. Neda, *Numerical analysis of a nonlinear time relaxation model of fluids***, J. Math. Anal. Appl**., 420 (2014), 1095–1115, WOS:000340310500014

11. **A. Dunca**, R. Lewandowski, *Modeling error in approximate deconvolution models*, **Com. Math. Sci.**, 12(2014), 757-778, WOS:000331835300008

12. **A. Dunca**, M. Neda, L. Rebholz, *A mathematical and numerical study of a filtering-based multiscale fluid model with nonlinear eddy viscosity*, **Comp. & Math. Appl**., 66(2013), 917–933, WOS:000324656800001

13**. A. Dunca**, *A two-level multiscale deconvolution method for the large eddy simulation of turbulent flows*, **Math. Mod. Meth. Appl. Sci.**, 22(2012), 1250001 (30 pages), WOS:000302736300001

14. **A. Dunca**, K. Kohler, M. Neda and L. Rebholz, *A mathematical and physical study of multiscale deconvolution models of turbulence*, **Math. Meth. Appl. Sci**., 35(2012), 1205–1219, WOS:000305685200007

15. **A. Dunca**, *On the existence of global attractors of the approximate deconvolution models of turbulence*, **J. Math. Anal. Appl**., 389(2012), 1128–1138, WOS:000300206700035

16**. A. Dunca**, Y.Epshteyn, *On the Stolz-Adams deconvolution models for the large eddy simulation of turbulent flows*, **SIAM J. Math. Anal**., 37(2006), 1890-1902, WOS:000236805700009

17. **A. Dunca**, V. John and W. Layton*, Approximating local averages of fluid velocities: the equilibrium Navier-Stokes*, **Appl. Num. Math**., 49(2004), 187-205, WOS:000220750700003

18. **A. Dunca**, V.John*, Finite element error analysis of space averaged flow fields defined by a differential filter*, **Math. Mod. Meth. Appl. Sci.**, 14(2004), 603-618, WOS:000220911200006

B. RESEARCH MONOGRAPHS/CHAPTERS

1. A. Dunca , Recent Advances in Approximate Deconvolution Methods for Fluid Dynamics, Fair Partners, 2016, ISBN 978-606-718-014-5

2. A. Dunca, V.John and W Layton, 'The commutation error in the space averaged Navier-Stokes equations on a bounded domain' pag. 53-78 in Contributions to Current Chalenges in Mathematical Fluid Dynamics, Series: Advances in Mathematical Fluid Dynamics, G. Galdi, J. Heywood, R. Rannacher (Eds),VII, Birkhauser, 2004, ISBN 3-7643-7104-8, COAUTOR CAPITOL.

12.9.2023