

# PROFESSOR RADOSTIN DIMOV SIMITEV

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Publication List — Glasgow, 2021-09-12

(Appendix A)

## 1. Articles in scientific journals

- [73] Candelaresi, S., Hornig, G., MacTaggart, D., & SIMITEV, R. D. (2021). On self and mutual winding helicity. *Communications in Nonlinear Science and Numerical Simulation*, 103, 106015. [doi.org/10.1016/j.cnsns.2021.106015](https://doi.org/10.1016/j.cnsns.2021.106015)
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- [71] Mortensen, P., Gao, H., Smith, G., & SIMITEV, R. D. (2021b). Addendum: Action potential propagation and block in a model of atrial tissue with myocyte–fibroblast coupling. *Mathematical Medicine and Biology: A Journal of the IMA*, 38(3), 292–298. [doi.org/10.1093/imammb/dqab005](https://doi.org/10.1093/imammb/dqab005)
- [70] Quinn, J., MacTaggart, D., & SIMITEV, R. D. (2021). Kelvin-Helmholtz instability and collapse of a twisted magnetic null point with anisotropic viscosity. *Astronomy & Astrophysics*, 650, A143. [doi.org/10.1051/0004-6361/202140460](https://doi.org/10.1051/0004-6361/202140460)
- [69] SIMITEV, R. D. & Busse, F. H. (2021). Onset of Inertial Magnetoconvection in Rotating Fluid Spheres. *Fluids*, 6(1), 41. [doi.org/10.3390/fluids6010041](https://doi.org/10.3390/fluids6010041)
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- [67] Mather, J. F. & SIMITEV, R. D. (2021). Regimes of thermo-compositional convection and related dynamos in rotating spherical shells. *Geophysical & Astrophysical Fluid Dynamics*, 115(1), 61–84. [doi.org/10.1080/03091929.2020.1762875](https://doi.org/10.1080/03091929.2020.1762875)
- [66] Silva, L., Gupta, P., MacTaggart, D., & SIMITEV, R. D. (2020). Effects of Shell Thickness on Cross-Helicity Generation in Convection-Driven Spherical Dynamos. *Fluids*, 5(4), 245. [doi.org/10.3390/fluids5040245](https://doi.org/10.3390/fluids5040245)
- [65] Quinn, J., MacTaggart, D., & SIMITEV, R. D. (2020). The effect of anisotropic viscosity on the nonlinear MHD kink instability. *Communications in Nonlinear Science and Numerical Simulation*, 83, 105131. [doi.org/10.1016/j.cnsns.2019.105131](https://doi.org/10.1016/j.cnsns.2019.105131)
- [64] Silva, L. A., Mather, J. F., & SIMITEV, R. D. (2019). The onset of thermo-compositional convection in rotating spherical shells. *Geophysical and Astrophysical Fluid Dynamics*, 113(4), 377–404. [doi.org/10.1080/03091929.2019.1640875](https://doi.org/10.1080/03091929.2019.1640875)

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## ■ 2. Articles in peer-reviewed collections

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### ■ 3. Articles in proceedings, technical reports

- [21] Mortensen, P., Aziz, M. H. B. N., Gao, H., & SIMITEV, R. D. (2018). Modelling and Simulations of Electrical Propagation in Transmural Slabs of Scarred Left Ventricular Tissue. In R. Owen, R. de Borst, J. Reese, & C. Pearce (Eds.), *6th European Conference on Computational Mechanics and 7th European Conference on Computational Fluid Dynamics, 11–15 June 2018, Glasgow* (pp. 1651–1663).  
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- [14] SIMITEV, R. D. & Busse, F. (2010). Problems of astrophysical turbulent convection: thermal convection in a layer without boundaries. In *Proceedings of the Center for Turbulence Research Summer Program 2010: Studying Turbulence Using Numerical Simulation* (pp. 485–492). Center for Turbulence Research, Stanford University.  
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#### ■ 4. PhD, MSc and PgCert theses

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- [7] SIMITEV, R. D. (2004). *Convection and Magnetic Field Generation in Rotating Spherical Fluid Shells*. PhD thesis, University of Bayreuth, Bayreuth, Germany.  
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#### ■ 5. Software & Research Datasets

- [5] Aziz, M. H. N. & SIMITEV, R. D. (2021). Code for Estimation of Parameters for an Archetypal Model of Cardiomyocyte Membrane Potentials. zenodo.org.  
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