Dr. Malcolm Roberts **List of Publications**

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Submitted:

- Malcolm Roberts and John C. Bowman. "Implicitly Dealiased Convolutions on Shared Memory Architectures". In: *Submitted to the SIAM Journal of Scientific Computing* (2016)
- Malcolm Roberts et al. *SEME 2016: OptionWay Project Report*. 2016

Peer-Reviewed Articles:

- Philippe Helluy et al. "Asynchronous OpenCL/MPI numerical simulations of conservation laws". In: *Lecture Notes in Computational Science and Engineering* (2016). To appear.
- Sebastien Guisset et al. "Lagrangian/Eulerian Solvers and Simulations for Vlasov". In: *ESAIM: Proceedings and Surveys* (2016). To appear.
- John C Bowman and Malcolm Roberts. "Adaptive Matrix Transpose Algorithms for Distributed Multicore Processors". In: *Interdisciplinary Topics in Applied Mathematics, Modeling and Computational Science*. Springer, 2015, pp. 97–103
- Malcolm Roberts et al. "Self-organization of helically forced MHD flow in confined cylindrical geometries". In: *Fluid Dynamics Research* 46.6 (2014), p. 061422. URL: stacks.iop.org/1873-7005/46/i=6/a=061422
- John C. Bowman and Malcolm Roberts. "Pseudospectral Reduction of Incompressible Two-Dimensional Turbulence". In: *Communications in Nonlinear Science and Numerical Simulation* 17.5 (2012), pp. 2008–2013
- John C. Bowman and Malcolm Roberts. "Efficient Dealiased Convolutions without Padding". In: *SIAM J. Sci. Comput.* 33.1 (2011), pp. 386–406
- Malcolm Roberts and John C. Bowman. "Dealiased convolutions for pseudospectral simulations". In: *Journal of Physics: Conference Series* 318.7 (2011), p. 072037. URL: stacks.iop.org/1742-6596/318/i=7/a=072037
- J. C. Bowman et al. "Links between dissipation, intermittency, and helicity in the GOY model revisited". In: *Physica D* 218 (2006), pp. 1–10

Dissertations:

- Malcolm Roberts. "Multispectral Reduction of Two-Dimensional Turbulence". PhD thesis. Edmonton, AB, Canada: University of Alberta, 2011
- Malcolm Ian William Roberts. "A Multi-Spectral Decimation Scheme for Turbulence Simulations". MA thesis. University of Alberta, 2006

Conference Proceedings:

- Malcolm Roberts, John C Bowman, and Bruno Eckhardt. "The Multispectral Method: Progress and Prospects". In: *Advances in Turbulence XII*. Springer, 2009, pp. 791–794
- Malcolm Roberts. *Report on the Math-Stat Graduate Education Round table*. 2011
- Sean Bohun et al. *General Statistical Design of an Experimental Problem for Harmonics*. 2008

Software:

- John C. Bowman and Malcolm Roberts. `FFTW++:` *A fast Fourier transform* C^{++} *header class for the* `FFTW3` *library*. `fftwpp.sourceforge.net`. 2010-2016
- Malcolm Roberts. `clFFT++:` *A fast Fourier transform* C^{++} *header class for the* `clFFT` *library*. `github.com/dealias/clfftpp`. 2016
- Malcolm Roberts, Philippe Helluy, and Emmanuel Franck. `schnaps:` *Solver for Conservative Hypebolic Non-linear systems Applied to PlasmaS*. `schnaps.gforge.inria.fr/`. 2015-2016
- Thomas Engels, Malcolm roberts, and Dmitry Kolomenskiy. `FLUSI:` *Fluid-Structure-Interaction / MHD Research Code*. `github.com/pseudospectators/FLUSI`. 2015-2016

Other Publications:

- Malcolm Roberts and Samantha Marion. *Notes for Differential Equations*. `github.com/malcolmroberts/denotes`. 2015