

## David Gammack

### Publications

- [1] **Gammack** and Hydon (1997) Steady flow in pipes of non-uniform curvature and torsion, University of Surrey Tech. Rep. 97/19/Ma.
  - [2] **Gammack** (1999) Blood flow in twisted arteries. PhD Thesis, University of Surrey.
  - [3] **Gammack**, Byrne and Lewis (2001) The selective advantage of mutant p53 tumour cells under hypoxia. *Bull. Math. Biol.*, **63**, pp.135-166.
  - [4] **Gammack** and Hydon (2001) Flow in pipes of non-uniform torsion and curvature. *J.Fluid Mech.*, **433**, pp.357-382.
  - [5] **Gammack**, Doering and Kirschner (2004) Modelling granuloma formation after *Mycobacterium tuberculosis* infection. *J. Math. Biol.* **48**, pp. 218-242.
  - [6] Bauer, Bortz, **Gammack**, Ben-David, Stein, Jackson, Younger (2004) Virulence of klebsiella pneumoniae predicted by nonlinear biodistributive mathematical model. *SHOCK* 21: 29-29 **85** Suppl. 2.
  - [7] **Gammack**, Ganguli, Marino, Segovia-Juarez, Kirschner (2005) Understanding the immune response in tuberculosis using different mathematical models and biological scales. *Multiscale Modeling & Simulation* **3** (2): 312-345.
  - [8] Ganguli, **Gammack** and Kirschner (2005). A metapopulation model of granuloma formation in the lung during infection with *Mycobacterium tuberculosis*. *Mathematical Biosciences & Engineering*, **2**, pp.535-560.
- Submitted/In Preparation*
- [9] **Gammack**, Byrne and McElwain, Modelling the effects of hypoxia, p53 and drug delivery on tumour cells.
  - [10] **Gammack**, Byrne, McElwain and Lewis, Modelling the spatial effects of hypoxia and mutations in the p53 gene on tumour growth.
  - [11] **Gammack**, Jackson, Murray and Nelson, A mechanochemical model with spatial effects, due to matrix multiplication, and its impact on cellular orientation.
  - [12] **Gammack** and Hydon, Chaotic Transport in helical pipes.
  - [13] Battani, Cranford and **Gammack** Transport in non-uniformly curved pipes.

**Email:** gammack@umich.edu

**Tel:**+1 (734) 647 5367

**Fax.:** +1 (734) 763 0937