Publications
Sorin TĂNASE-NICOLA

Refereed papers

1. Fitness in time-dependent environments includes a geometric phase contribution , S. Tănase-Nicola and I. Nemenman, J. R. Soc. Interface, doi: 10.1098/rsif.2011.0695 (2011).

2. Speeding up evolutionary search by small fitness fluctuations, J. Otwinowski, S. Tănase-Nicola and I. Nemenman, J. Stat. Phys., **144**, 367–378 (2010).

3. Reciprocal sign epistasis is a necessary condition for multi-peaked fitness landscapes, F. Poelwijk, S. Tănase-Nicola, D. Kiviet, and S. Tans, J. Theor. Biology, **272**, 141-144 (2010).

4. Spatio-temporal correlations can drastically change the response of a MAPK pathway, K. Takahashi , S. Tănase-Nicola, and P. R. ten Wolde, Proc. Natl. Acad. Sci. USA , **107**, 2473-2478 (2010).

5. The switching dynamics of the bacterial flagellar motor, S. van Albada, S. Tănase-Nicola, and P. R. ten Wolde, Molecular Systems Biology, **5**, 316 (2008).

6. Homogeneous nucleation under shear in a two dimensional Ising model: Cluster growth, coalescence, and breakup, R. J. Allen, C. Valeriani S. Tănase-Nicola, P. R. ten Wolde, and D. Frenkel, J. Chem. Phys. **129**, 134704 (2008).

7. Regulatory control and the costs and benefits of biochemical noise, S. Tănase-Nicola and P. R. ten Wolde, PLOS Comp. Biol. **4**, e1000125 (2008).

8. Reaction coordinates for the flipping of genetic switches, M. J. Morelli, R. J. Allen, S. Tănase-Nicola, and P. R. ten Wolde, Biophys. J. **94**, 3413–3423 (2008).

9. Eliminating fast reactions in stochastic simulations of biochemical networks: a bistable genetic switch, M. J. Morelli, R. J. Allen, S. Tănase-Nicola, and P. R. ten Wolde, J. Chem. Phys. **128**, 045105 (2006).

10. Signal detection, modularity, and the correlation between extrinsic and intrinsic noise in biochemical networks, S. Tănase-Nicola, P. B. Warren, and P. R. ten Wolde, Phys. Rev. Lett. **97**, 068102 (2006).

11. Diffusion of transcription factors can drastically enhance the noise in gene expression, J. S. van Zon, M. J. Morelli, S. Tănase-Nicola, and P. R. ten Wolde, Biophys. J. **91**, 4350 (2006).

12. Exact results for noise power spectra in linear biochemical reaction networks, P. B. Warren, S. Tănase-Nicola, and P. R. ten Wolde, J. Chem. Phys. **125**, 144904 (2006).

13. Kramers equation and supersymmetry, J. Tailleur, S. Tănase-Nicola, and J. Kurchan, J. Stat. Phys. **122**, 557 (2006).

14. Metastable states, transitions, basins and borders at finite temperatures, S. Tănase-Nicola and J. Kurchan, J. Stat. Phys. **116**, 1201 (2004).

15. Topological methods for searching barriers and reaction paths, S. Tănase-Nicola and J. Kurchan, Phys. Rev. Lett. **91**, 188302 (2003).

16. Statistical-mechanical formulation of Lyapunov exponents, S. Tănase-Nicola and J. Kurchan, J. Phys. A **36**, 10299 (2003).

17. Laponite: Aging and shear rejuvenation of a colloidal glass, D. Bonn, S. Tanase, B. Abou, H. Tanaka, and J. Meunier, Phys. Rev. Lett. **89**, 015701 (2002).

Refereed Conference Publications

1. Nucleation in a sheared two-dimensional Ising model: Effects of external field, R. J. Allen, C. Valeriani, and S. Tănase-Nicola, Prog. Theor. Phys., in press (2008).
2. Mapping reaction paths in phase-space, J. Trailleur, S. Tănase-Nicola, and J. Kurchan, International Journal of Modern Physics B **20**, 5254 (2006).
3. Characteristics of TLD-100 fading and its influence on the calibration of personal dosemeters, A. Vasilache, R, S. Tănase-Nicola, and R. Tiron, Radiation Protection Dosimetry **85**, 183 (1999).

Invited Contribution

1. Biophysics: Pass on the message, P. R. ten Wolde and S. Tănase-Nicola, Nature Physics **2**, 371 (2006).