

# Michael Assaf - List of Publications

1. **M. Assaf** and B. Meerson – "[Autoresonance in Faraday waves](#)", Phys. Rev. E **72**, 016310 (2005)
2. O. Ben-David, **M. Assaf**, J. Fineberg and B. Meerson – "[Experimental study of parametric autoresonance in Faraday waves](#)", Phys. Rev. Lett. **96**, 154503 (2006)
3. **M. Assaf** and B. Meerson – "[Spectral formulation and WKB approximation for rare-event statistics in reaction Systems](#)", Phys. Rev. E **74**, 041115 (2006)
4. **M. Assaf** and B. Meerson – "[Spectral theory of metastability and extinction in birth-death systems](#)", Phys. Rev. Lett. **97**, 200602 (2006)
5. **M. Assaf** and B. Meerson – "[Spectral theory of metastability and extinction in a branching-annihilation reaction](#)", Phys. Rev. E **75**, 031122 (2007)
6. I. Fouxon, B. Meerson, **M. Assaf** and E. Livne – "[Formation and evolution of density singularities in hydrodynamics of inelastic gases](#)", Phys. Rev. E **75**, 050301 (Rapid Communication) (2007)
7. I. Fouxon, B. Meerson, **M. Assaf** and E. Livne – "[Formation of density singularities in hydrodynamics of freely cooling inelastic gases: a family of exact solutions](#)", Phys. Fluids **19**, 093303 (2007)
8. **M. Assaf** and B. Meerson – "[Noise enhanced persistence in a biochemical regulatory network with feedback control](#)", Phys. Rev. Lett. **100**, 058105 (2008)
9. A. Puglisi, **M. Assaf**, I. Fouxon and B. Meerson – "[Attempted density singularities in freely cooling inelastic gases: hydrodynamics versus molecular dynamics](#)", Phys. Rev. E **77**, 021305 (2008)
10. **M. Assaf**, A. Kamenev and B. Meerson – "[Population extinction in a time-modulated environment](#)", Phys. Rev. E **78**, 041123 (2008)
11. **M. Assaf**, A. Kamenev and B. Meerson – "[On population extinction risk in the aftermath of a catastrophic event](#)", Phys. Rev. E **79**, 011127 (2009)
12. **M. Assaf** and B. Meerson - "[Extinction of metastable stochastic populations](#)", Phys. Rev. E **81**, 021116 (2010)

13. M. Mobilia and **M. Assaf** – "[Fixation in evolutionary games under non-vanishing selection](#)", Euro. Phys. Lett. **91**, 10002 (2010)
14. **M. Assaf**, B. Meerson and P.V. Sasorov – "[Large fluctuations in stochastic population dynamics: momentum space calculations](#)", J. Stat. Mech. **P07018** (2010)
15. **M. Assaf** and M. Mobilia – "[Large fluctuations and fixation in evolutionary games](#)", J. Stat. Mech. **P09009** (2010)
16. **M. Assaf** and M. Mobilia – "[Fixation of a deleterious allele under mutation pressure and finite selection intensity](#)", J. Theo. Bio. **275**, 93 (2011)
17. **M. Assaf**, E. Roberts and Z. Luthey-Schulten – "[Determining the stability of genetic switches: explicitly accounting for mRNA noise](#)", Phys. Rev. Lett. **106**, 248102 (2011)
18. **M. Assaf**, L. Angheluta and N. Goldenfeld, – "[Rare fluctuations and large-scale circulation cessations in turbulent convection](#)", Phys. Rev. Lett. **107**, 044502 (2011)
19. **M. Assaf**, L. Angheluta and N. Goldenfeld, – "[Effect of weak rotation on large-scale circulation cessations in turbulent convection](#)", Phys. Rev. Lett. **109**, 074502 (2012)
20. **M. Assaf\*** and M. Mobilia\* – "[Metastability and anomalous fixation in evolutionary games on scale free networks](#)", Phys. Rev. Lett. **109**, 188701 (2012)  
(\* - equal contribution)
21. T. Earnest, E. Roberts, **M. Assaf**, K. Dahmen and Z. Luthey-Schulten – "[DNA looping increases range of bistability in a stochastic model of the lac genetic switch](#)", Phys. Biol. **10**, 026002 (2013)
22. N. Vardi\*, S. Levy\*, **M. Assaf**, M. Carmi and N. Barkai – "[Budding Yeast Escape Commitment to the Phosphate Starvation Program Using Gene Expression Noise](#)", Curr. Biol. **23**, 2051 (2013) (\* - equal contribution)
23. **M. Assaf\***, E. Roberts\*, Z. Luthey-Schulten and N. Goldenfeld – "[Extrinsic noise driven phenotype switching in a self-regulating gene](#)", Phys. Rev. Lett. **111**, 058102 (2013) (\* - equal contribution)
24. **M. Assaf**, M. Mobilia and E. Roberts – "[Cooperation dilemma in finite populations under fluctuating environments](#)", Phys. Rev. Lett. **111**, 238101 (2013)