List of Publications

## Jacopo Grilli

Postdoctoral Scholar Zoology bld., room 403 Department of Ecology and Evolution University of Chicago 1101 E. 57th st., Chicago 60637 IL, USA

Mobile: +1-773-431-3968 E-mail: jgrilli@uchicago.edu

WWW: home.uchicago.edu/~jgrilli/

- [1] <u>J. Grilli</u>, M. Adorisio, S. Suweis, G. Barabás, J.R. Banavar, S. Allesina and A. Maritan. Feasibility and coexistence of large ecological communities. Accepted in *Nature Communications*. 2017. arXiv:1507.05337
- [2] S. Azaele, S. Suweis, <u>J. Grilli</u>, I. Volkov, J.R. Banavar, and A. Maritan. Statistical mechanics of ecological systems: neutral theory and beyond. *Review of Modern Physics*. 88, 035003. 2016. doi:10.1103/RevModPhys.88.035003 arXiv:1506.01721
- [3] <u>J. Grilli</u>, T. Rogers and S. Allesina. Modularity and stability in ecological communities. *Nature Communications*. 7:12031. 2016. doi:10.1038/ncomms12031
- [4] J. Hidalgo, <u>J. Grilli</u>, S. Suweis, A. Maritan and M.A. Muñoz. Cooperation, competition and the emergence of criticality in communities of adaptive systems. *Journal of Statistical Mechanics: Theory and Experiment.* 2016(3):033203. 2016. doi:10.1088/1742-5468/2016/03/033203 arXiv:1510.05941
- [5] A.S. Kennard, M. Osella, A. Javer, <u>J. Grilli</u>, P. Nghe, S. Tans, P. Cicuta and M. Cosentino Lagomarsino. Individuality and universality in the growth-division laws of single E. coli cells. *Physical Review E.* 93, 012408. 2016. doi:10.1103/PhysRevE.93.012408 arXiv:1411.4321
- [6] S. Suweis, J. Grilli, J.R. Banavar, S. Allesina and A. Maritan. Effect of localization on the stability of mutualistic ecological networks. *Nature Communications*. 6:10179. 2015. doi:10.1038/ncomms10179
- [7] S. Allesina, <u>J. Grilli</u>, G. Barabás, S. Tang, J. Aljadeff and A. Maritan. Predicting the stability of large structured food webs. *Nature Communications*. 6:7842. 2015. doi:10.1038/ncomms8842
- [8] <u>J. Grilli</u>, G. Barabás and S. Allesina. Metapopulation persistence in random fragmented landscapes. *Plos Computational Biology*. 11(5):e1004251. 2015. doi:10.1371/journal.pcbi.1004251
- [9] J. Hidalgo<sup>†</sup>, J. Grilli<sup>‡</sup>, S. Suweis, M.A. Muñoz, J.R. Banavar and A. Maritan. Information-based fitness and the emergence of criticality in living systems. *Proceedings of the National Academy of Sciences*. 111(28):10095-10100. 2014. doi:10.1073/pnas.1319166111 arXiv:1307.4325
- [10] J. Grilli, M. Romano, F. Bassetti and M. Cosentino Lagomarsino. Cross-species gene-family fluctuations reveal the dynamics of horizontal transfers. *Nucleic Acids Research*. 42(11):6850-6860. 2014. doi:10.1093/nar/gku378
- [11] S. Suweis<sup>‡</sup>, <u>J. Grilli</u><sup>‡</sup> and A. Maritan. Disentangling the effect of hybrid interactions and of the constant effort hypothesis on ecological community stability. *Oikos.* 123(5):525-532. 2014. doi:10.1111/j.1600-0706.2013.00822.x arXiv:1301.1569
- [12] <u>J. Grilli</u>, S. Suweis and A. Maritan. Growth or reproduction: emergence of an evolutionary optimal strategy. *Journal of Statistical Mechanics: Theory and Experiment.* 2013(10):P10020. 2013. doi:10.1088/1742-5468/2013/10/P10020 arXiv:1306.5877

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- [14] <u>J. Grilli</u>, S. Azaele, J.R. Banavar and A. Maritan. Spatial aggregation and the species-area relationship across scales. *Journal of Theoretical Biology*. 313:87-97. 2012. doi:10.1016/j.jtbi.2012.07.030 pmid:22902426 arXiv:1209.3591
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- [16] <u>J. Grilli</u>, B. Bassetti, S. Maslov and M. Cosentino Lagomarsino. Joint scaling laws in functional and evolutionary categories in prokaryotic genomes. *Nucleic Acids Research*. 40(2):530-540. 2012. doi:10.1093/nar/gkr711 pmid:21937509 arXiv:1101.5814

## Submitted

- [17] <u>J. Grilli</u>, G. Barabás, M. Michalska-Smith and S. Allesina. Higher-order interactions stabilize dynamics in competitive network models.
- [18] J. Grilli, M. Osella, A.S. Kennard and M. Cosentino Lagomarsino. Relevant parameters in models of cell division control. arXiv:1606.09284
- [19] C. Tu, <u>J. Grilli</u>, and S. Suweis. Universality of Resilience Patterns in Generalized Lotka Volterra Dynamics and Beyond. arXiv:1606.09630

## **Preprints**

[20] M. Adorisio, <u>J. Grilli</u>, S. Suweis, S. Azaele, J.R. Banavar and A. Maritan. Spatial maximum entropy modeling from presence/absence tropical forest data. arXiv:1407.2425

<sup>&</sup>lt;sup>†</sup> indicates equal contributions.