Lista de publicații

(a) articole:

(1) Sándor, B., Rusu, A., Dénes, K., Ercsey-Ravasz, M., & Lázár, Z. I. (2024) Measuring dynamical phase transitions in time series, arXiv preprint arXiv:2407.13452 (under review la Physical Review Letters);

(2) Sándor, B., Gros, C., Manoonpong, P. (2024) Editorial: The roles of self-organization and sensory adaptation for locomotion in animals and robots, Front. Neurorobot. 18, 1372772; **IF: 2.6**

(3) Schneider, L., Scholten, J., Sándor, B., & Gros, C. (2021) Charting closed-loop collective cultural decisions: From book best sellers and music downloads to Twitter hashtags and Reddit comments, The European Physical Journal B 94, 1-13; **IF: 1.6**

(4) Dénes, K., Sándor, B., & Néda, Z. (2021) Synchronization patterns in rings of time-delayed Kuramoto oscillators, Communications in Nonlinear Science and Numerical Simulation, 93, 105505; **IF: 4.0**

(5) Sándor, B., Schneider, B., Lázár, Z. I., & Ercsey-Ravasz, M. (2021) A novel measure inspired by lyapunov exponents for the characterization of dynamics in state-transition networks, Entropy 23 (1), 103; **IF: 2.1**

(6) Gergely, A., Sándor, B., Paizs, Cs., Tötös, R., & Néda, Z. (2020) Flickering candle flames and their collective behavior, Scientific Reports 10 (1), 21305; **IF: 3.8**

(7) Wernecke, H., Sándor, B., & Gros, C. (2019) Chaos in time delay systems, an educational review, Physics Reports, 824, 1-40; **IF: 28.3**

(8) Koglin, T., Sándor, B., & Gros, C. (2019) When the goal is to generate a series of activities: A self-organized simulated robot arm, Plos ONE, 14 (6), e0217004; **IF: 2.7**

(9) Dénes, K., Sándor, B., & Néda, Z. (2019) Pattern selection in a ring of Kuramoto oscillators, Communications in Nonlinear Science and Numerical Simulation, 78, 104868 ; **IF: 4.0**

(10) Kubandt, F., Nowak, M., Koglin, T., Gros, C., & Sándor, B. (2019) Embodied robots driven by self-organized environmental feedback, Adaptive Behavior, 105971231985562; **IF: 1.4**

(11) Dénes, K., Sándor, B., & Néda, Z. (2019) On the predictability of the final state in a ring of Kuramoto rotators, Romanian Reports in Physics, 71, 108; **IF: 1.9**

(12) Sándor, B., Nowak, M., Koglin, T., Martin, L., & Gros, C. (2018). Kick Control: Using the Attracting States Arising Within the Sensorimotor Loop of Self-Organized Robots as Motor Primitives. Front. in Neurorob., 12, 40.; **IF: 2.6**

(13) Wernecke, H., Sándor, B., & Gros, C. (2018). Attractor metadynamics in terms of target points in slow-fast systems: adiabatic versus symmetry protec-

ted flow in a recurrent neural network. Journal of Physics Communications, 2(9), 95008.

(14) Wernecke, H., Sándor, B., & Gros, C. (2017). How to test for partially predictable chaos. Scientific Reports, 7(1), 1087.; **IF: 4.1**

(15) Martin, L., Sándor, B., & Gros, C. (2016). Closed-loop robots driven by short-term synaptic plasticity: Emergent explorative vs. limit-cycle locomotion. Frontiers in Neurorobotics, 10, 12.; **IF: 2.6**

(16) Sándor, B., Simonsen, I., Nagy, B. Z., & Néda, Z. (2016). Time-scale effects on the gain-loss asymmetry in stock indices. Physical Review E, 94(2), 22311.1; **IF: 2.2**

(17) Sándor, B., Jahn, T., Martin, L., & Gros, C. (2015). The Sensorimotor Loop as a Dynamical System: How Regular Motion Primitives May Emerge from Self-Organized Limit Cycles. Frontiers in Robotics and AI, 2, 31.; **IF: 2.6**

(18) Sándor, B., & Gros, C. (2015). A versatile class of prototype dynamical systems for complex bifurcation cascades of limit cycles. Scientific Reports, 5, 12316. 6; **IF: 4.1**

(19) Sándor, B., & Néda, Z. (2015). A spring–block analogy for the dynamics of stock indexes. Physica A: Statistical Mechanics and Its Applications, 427, 122–131.; **IF: 2.1**

(20) Sándor, B., Járai-Szabó, F., Tél, T., & Néda, Z. (2013). Chaos on the conveyor belt. Physical Review E, 87(4), 42920.; **IF: 2.2**

(21) Mocanu, G. R., & Sándor, B. (2012). Rms-flux relation in the optical fast variability data of BL Lacertae object S5 0716+714. Astrophysics and Space Science, 342(1), 147–153.; **IF: 1.8**

(22) Járai-Szabó, F., Sándor, B., & Néda, Z. (2011). Spring-block model for a single-lane highway traffic. Cent. Eur. J. Phys., 9(4), 1002–1009.

(b) proceedings;

(1) Sándor, B., & Gros, C. (2024) Self-organized Attractoring in Locomoting Animals and Robots: An Emerging Field, In Proceedings of the Artificial Neural Networks and Machine Learning – ICANN 2024, 15025, 324–338

(2) Fischer, E., Sándor, B., & Gros, C. (2023) Neural self-organization for muscle-driven robots, In Proceedings of the Artificial Neural Networks and Machine Learning – ICANN 2023, 560–564

(3) Gros, C., Martin, L., & Sándor, B. (2017). A self-organized one-neuron controller for artificial life on wheels. In Proceedings of the 14th European Conference on Artificial Life 2017 (pp. 184–185).

(4) Sándor, B., & Gros, C. (2017). Complex activity patterns generated by short-term synaptic plasticity. In ESANN 2017 Proceedings (p. 317).

(5) Sándor, B., Martin, L., & Gros, C. (2016). The role of the sensorimotor loop for cognition. In EUCognition 2016 Cognitive Robot Architectures (pp. 40–41). CEUR Workshop Proceedings.

(6) Sándor, B., & Gros, C. (2015). Limit cycles with transient state dynamics in cyclic networks. In BMC Neuroscience (Vol. 16, p. P89). BioMed Central.

(c) teza de doctorat:

(1) Sándor, B. (2017). The world of dynamical systems: multistability, neural dynamics and robotic locomotion. Goethe University Frankfurt.