Kompleks Sistemler Fizik Yasalarına Uyar mı?

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Bir kompleks Sistem: Ekonomi

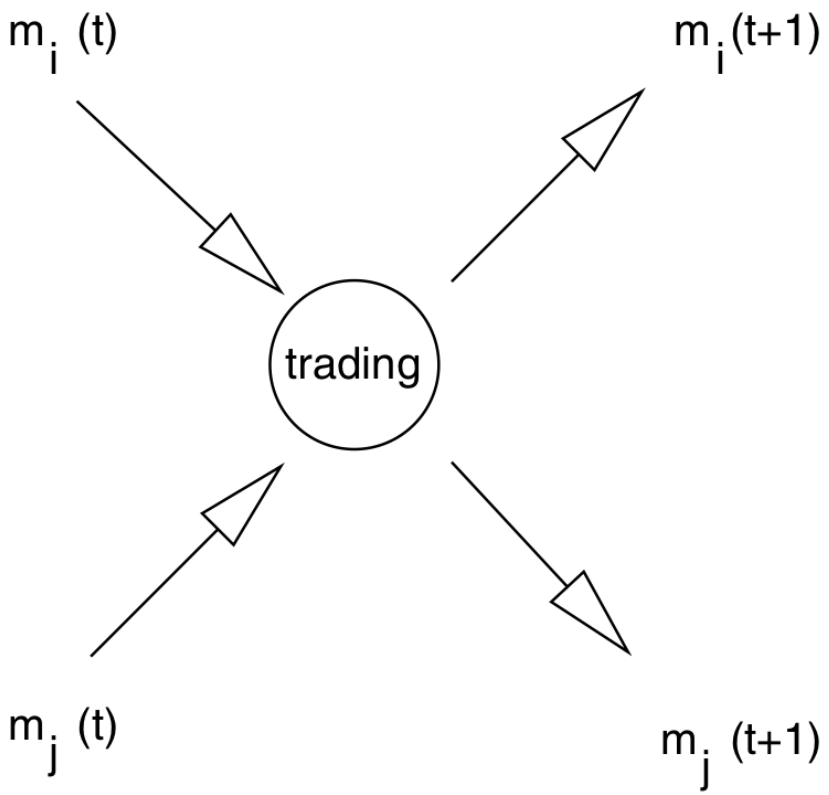

Fig. 2. Schematic diagram of the trading process. Agents i and j redistribute their money in the market: $m_i(t)$ and $m_j(t)$, their respective money before trading, changes over to $m_i(t+1)$ and $m_j(t+1)$ after trading.

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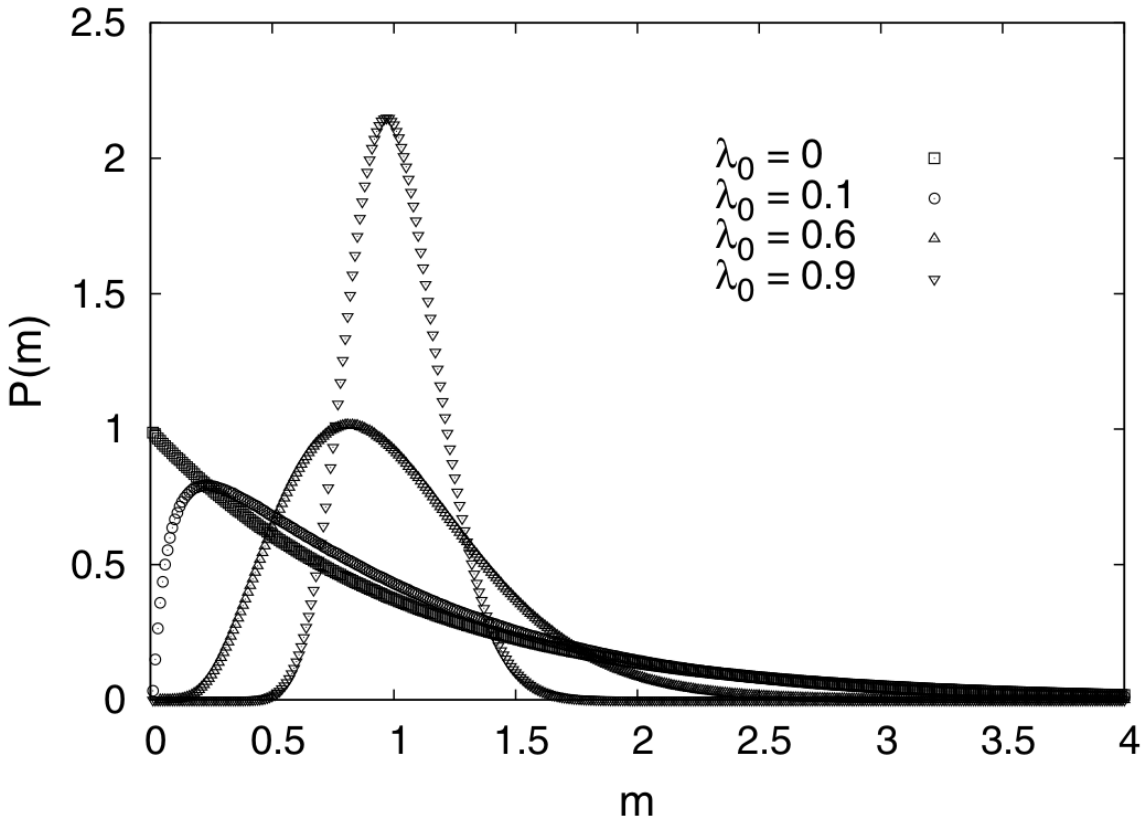

Fig. 3. Steady state money distribution $P(m)$ for the model with uniform savings. The data shown are for different values of λ: $0, 0.1, 0.6, 0.9$ for a system size $N = 100$. All data sets shown are for average money per agent $M/N = 1$.

Bir kompleks Sistem: Ekonomi

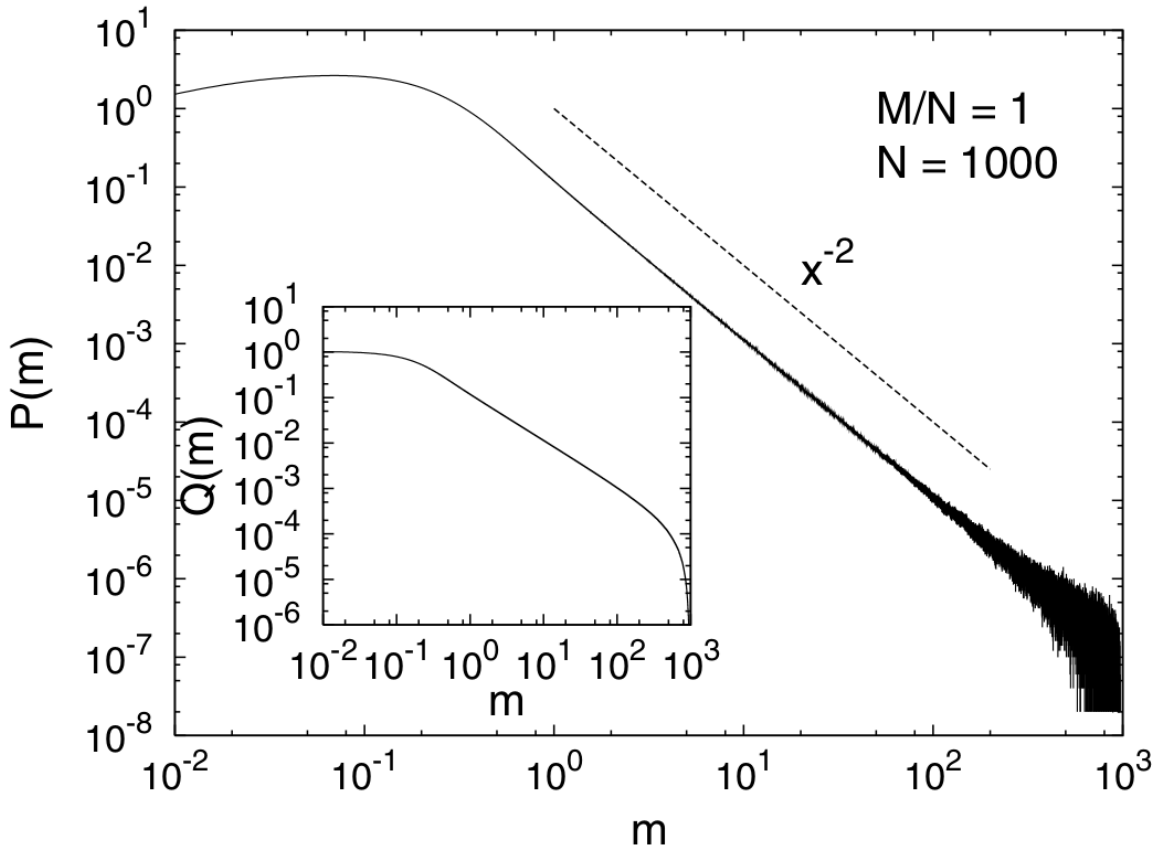

Fig. 4. Steady state money distribution $P(m)$ for the distributed λ model with $0 \leq \lambda < 1$ for a system of $N = 1000$ agents. The x^{-2} is a guide to the observed power-law, with $1 + \nu = 2$. Here, the average money per agent $M/N = 1$.

Bir kompleks Sistem: Yayınlar

Aydiner E., Cherstvy A., Metzler R., "Wealth distribution, Pareto law, and stretched exponential decay of money: Computer simulations analysis of agent-based models", PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, pp.278-288, 2018 https://doi.org/10.1016/j.physa.2017.08.017
Aydiner E., Cherstvy A., Metzler R., "Money distribution in agent-based models with position-exchange dynamics: the Pareto paradigm revisited?" Eur. Phys. J. B (2019) Vol: No (in press) https://doi.org/10.1140/epjb/e2019-90674-0