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### **Stylized facts description by the cunning agents model**

In this work we proposed agent-based model of financial markets, where agents or spinsons are represented by three-state spins located on the plane lattice (social network). The spin variable in this model represents only the advice that each spinson gives to his nearest neighbours on the social network. One of the consequences of our model assumptions is that the agents can be considered as cunning. This means that when an agent advise his colleagues to buy some stocks he can only sell his own stocks, and, conversely, when he advise them to sell their stocks he himself can only buy and not sell. Applying our approach by adjusting only a few parameters we described the real financial market characteristics such as the actual statistics of the S&P 500 index variations, returns statistics for S&P 500, statistics of DAX, and WIG20, as well as the autocorrelation function of absolute returns for DJIA and S&P 500. Furthermore, we reproduced in the frame of our model the full-range data collapse of statistics of S&P 500 variations originating from very different time scales.