

On processes of wealth proportions of personal to overall wealth in a stochastic model of economy

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Abstract — In this talk, we extend Bouchaud's model to a stochastic model and define the process of the wealth proportion of personal to overall wealth. The mean-field limit, the ergodicity and the second moment for the process of the wealth proportion are studied. We show that the process of the wealth proportion is ergodic. And the distribution of the invariant measure for the process of the wealth proportion is of power-law type. Moreover, the size's comparison of the second moment for the process of the wealth proportion has an interesting result in contrast with the sizes of volatilities. .

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