Human behavior and lognormal distribution. A kinetic description

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Abstract: In recent years it has been increasing evidence that lognormal distributions are widespread in physical and biological sciences, as well as in various phenomena of economics and social sciences. In social sciences, the appearance of lognormal distribution has been noticed, among others, when looking at body weight, and at women’s age at first marriage. Likewise, in economics, lognormal distribution appears when looking at consumption in a western society, at call-center service times and others. The common feature of these situations, which describe the distribution of a certain attribute of agents, is the presence of a desired target to be reached by repeated choices. In this talk, we discuss a possible explanation of lognormal distribution forming in human activities, by resorting to classical methods of statistical mechanics of multi-agent systems [1, 2, 3].

References