Dynamics and Lie Theory Seminar

The Mathematics of Inequality 2

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Abstract. In this talk we continue the topic of our last presentation now focusing in describing the long term wealth distribution. We recall that the stochastic process which describes the dynamics of the wealth distribution is a affine one, called a Kesten process. We assume that the multiplication factor has lognormal distribution and then will relate the three parameters defining the stochastic process (two from the lognormal distribution and one from the additive term) with the Pareto coefficient of the upper tail, the mean and the inequality index (which we introduce) of the equilibrium distribution. This allows us to estimate empirically the long term wealth distribution and verify if this model fit well the observed data, which is a topic for further research.

References

[1] M. Patrão (2018). Income and Wealth Distributions in a Neoclassical Growth Model with $\sigma \geq 1$. *in John A. Bishop, Juan Gabriel Rodríguez (ed.) Inequality, Taxation and Intergenerational Transmission (Research on Economic Inequality)*, vol. 26, 35 - 62.