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"Confirmatory Bias, Social Interactions, and Asset Pricing"

(joint with Timoteo Carletti and Simone Righi, Department of Mathematics, University of Namur)

Abstract: We study the efficiency of a financial market with one tradable asset and a large number of traders whose price expectations are partially adaptive. Agents can also exchange information in random encounters before trading and have confirmatory bias (i.e. tend to discard the information differing too much from their priors). We model the dynamics of price expectations using a modified version of the opinion-dynamics model of Deffuant et al. (Adv. in Complex Syst., 2000). We find that market inefficiency (the deviation of the long-run price from the fundamentals) can be non-monotonic in the degree of confirmatory bias and the degree of adaptiveness of expectations. Surprisingly, the negative effect of the confirmatory bias can be mitigated by the adaptiveness of expectations, and vice versa.