Talk 1: Johannes Muhle-Karbe (Imperial College, London)

Title: Liquidity and Asset Prices

(Joint work in progress with Paolo Guasoni and Xiaofei Shi)

Abstract. Do investors pay more for assets that are easy to buy and sell? Does the introduction of a transaction tax make markets less volatile? And what happens to interest rates when assets become easier to trade?

Questions like this evidently cannot be answered by starting from a convenient stochastic process model for the asset prices at hand. Instead, to understand how prices depend on the liquidity of the market, they need to be derived from first principles by matching the supply and demand of the investors trading them. However, the corresponding fixed-point problems are intractable even in the simplest toy models.

In this talk, we discuss how to overcome this impasse by using probabilistic methods to derive closed-form results in the practically relevant regime of large (but finite) liquidity.

3