

1116-91-1551      **Junjian Yang\*** ([junjian.yang@univie.ac.at](mailto:junjian.yang@univie.ac.at)), Oskar-Morgenstern-Platz, 1, A-1190 Vienna, Austria. *On the existence of shadow price processes.*

In a financial market with a continuous price process and proportional transaction costs, we investigate the problem of utility maximization of terminal wealth. We give sufficient conditions for the existence of a shadow price process, i.e., a least favorable frictionless market leading to the same optimal strategy and utility as in the original market under transaction costs. Examples and counterexamples will be given. Special emphasis will be put on financial models based on fractional Brownian motion. This is based on joint work with Christoph Czichowsky and Walter Schachermayer. (Received September 20, 2015)