

# Some Remarks on the Approximate Approach to the EUIV

Keio University

Takuji Arai

## Abstract

Our first aim of this paper is to introduce a new valuation method for contingent claims in incomplete markets, which approximates to the exponential utility indifference valuation (EUIV, for short). In the definition of the EUIV, we require a strong condition related to the underlying contingent claim. For example, European call options in Black-Scholes type models do not satisfy this strong condition. On the other hand, by using a kind of power functions instead of the exponential function, we succeed in providing a new valuation, which is well-defined under a reduced condition which Black-Scholes type models satisfy. Furthermore, we purpose to give some remarks and future problems with respect to our new valuation in the last section.