

Exchange Economies with Infinitely Many Commodities and a Saturated Measure Space of Consumers

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Abstract: The existence of competitive equilibria for exchange economies with a continuum of consumers over the commodity spaces ℓ^∞ and $ca(K)$ respectively will be proved. We define the economy as a measurable map from a *saturated* or *super-atomless* measure space to the space of consumers' characteristics following Aumann (1964), and prove the existence theorem without the convexity of preferences, applying a Fatou's lemma which has been recently obtained by the authors. Our model is considered to be a natural realization of the Aumann's thesis, or "many more agents than commodities". The representation and the realization of the distributional equilibria (Suzuki (2013a,b)) will be also discussed.

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Key Words: Existence of Competitive Equilibria, Infinite Dimensional Commodity Space, Saturated Measure Space, Infinite Dimensional Fatou's Lemma.