


复旦大学数学科学学院
数学综合报告会

报告题目：**Second order Reflected BSDEs with measurable coefficients**

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报告时间：2018-03-12 星期一 9:30-10:30

报告地点：光华东主楼 1801

摘要：We present different recent results on second order reflected BSDEs. The first result concerns existence and uniqueness for second order reflected BSDEs (2RBSDEs) under weak assumptions about the generator, the terminal condition and the obstacle in the context of general filtration. The dynamic programming principle plays a key role for the existence proof, we construct a value function that is measurable with respect to time, space and probability measure. Therefore, we use the measurable selection theorem to prove dynamic programming principle. The non-symmetry between the lower obstacle and the upper obstacle in the second-order framework is also highlighted. Then we consider the problem of approximation of the initial value of the solution of a 2RBSDEs . This can be interpreted as an approximation of a control problem of the standard reflected backward stochastic differentials equations solutions with uncertainty on the model. This talk is based on several works with L. Denis, F. Noubiagain (Le Mans Université), D. Possamai (Columbia University, NY, USA) and C. Zhou (National University of Singapore) .

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