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Time discretization of markovian quadratic and superquadratic BSDEs with an unbounded terminal condition

Abstract: My presentation will deal with the existence and the uniqueness of solutions to quadratic and superquadratic Markovian backward stochastic differential equations (BSDEs for short) with an unbounded terminal condition. Our results are deeply linked with a strong a priori estimate on Z that takes advantage of the Markovian framework. This estimate allows us to give explicit convergence rates for time approximation of quadratic or superquadratic Markovian BSDEs.