DUALITY IN CONTINUOUS TIME STOCHASTIC OPTIMIZATION

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We present new results on dual representations for convex integral functionals on the spaces of regular processes and processes of bounded variation. Combined with the conjugate duality framework of Rockafellar, this allows us to derive dual problems and optimality conditions for various optimization problems arising in singular stochastic control and mathematical finance. The talk is based on a joint work with Teemu Pennanen, King's College London.