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## On the Stochastic Integral Equations with Non-lipschitz Coefficients

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### Abstract

Consider the stochastic integral equation (S.I.E.) where  $f$  satisfies some non-Lipschitz condition and  $H, Z$  are  $F_t$ -semimartingales, continuous or discontinuous, on some probability space  $(\Omega, \mathcal{F}, \{F_t\}_{t \in \mathbb{R}^+}, P)$ . We prove that if  $f$  satisfies Condition H 1 or H 2 (defined in Sec. 0), then both the existence and the uniqueness of the solutions of 1 hold.

Key words : Stochastic integral equation; Semimartingale; AMS Subject Classification: 60G44