

Forward equations for option prices in semimartingale models

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We derive a forward partial integro-differential equation for prices of call options in a model where the dynamics of the underlying asset under the pricing measure is described by a -possibly discontinuous-semimartingale. This result generalizes Dupire's forward equation to a large class of non-Markovian models with jumps and allows to retrieve various forward equations previously obtained for option prices in a unified framework.