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Analytically Tractable Structural Credit Risk Model — A New Framework.

We propose a new framework of structural credit risk model that is flexible and analytically tractable. In this framework, the asset value of a company can be modeled by a wide range of stochastic processes while the default time distribution is still known in closed form. As an example we take into consideration the stochastic volatility of the asset value of a company. In the special case where a company's debt ratio is a constant, the joint default time distribution can be obtained analytically in any dimensions. (Received January 15, 2016)