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Alec N Kercheval* (akercheval@fsu.edu). *A jump threshold approach to credit risk*. Preliminary report.

We describe a structural credit risk model framework where the default event corresponds to the first jump of a firm's stock price below a given (possibly stochastic) threshold. This has the tractability of the much simpler reduced form models while still connecting to endogenous stock price information. The method handles multidimensional problems via the Levy copula, and can be extended to stochastic volatility of the underlying stock while still yielding explicit formulas for the default time distribution and prices of credit default swaps. Contributors to this work include Pierre Garreau, Chun-Yuan Chiu, and Chenchen Zhou. (Received July 11, 2017)