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CDO Pricing Models The Next Generation: Incomplete Markets and Term Structure

This talk will make a case that the next generation of CDO pricing models should be term-structure models that account for the incomplete market aspects of CDOs. These are two features that are not included in the current generation of copula models. Whereas calibrated copula models in general predict a definite price for an unmarketed derivative on the basket, the incomplete-market aspects of CDOs means that many derivatives on the reference basket have a range of arbitrage-free prices that the market can choose from. (Thus one gets some insight into the model risk associated with the use of copula models.) The development of a term-structure model means that one can price derivatives that depend on market prices at different maturities, such as forward-start CDOs. A new model illustrating these features will be described in the talk.