

Meeting: 1002, Pittsburgh, Pennsylvania, SS 11A, Special Session on Mathematical Finance

1002-60-237 **Marcos Escobar** (marcos@math.utoronto.ca), Department of Mathematics, Toronto, Ontario M5S3G3, Canada, and **Luis A Seco*** (seco@math.utoronto.ca), Department of Mathematics, Toronto, Ontario M5S3G3, Canada. *Pricing Default Correlation Products within a structural framework*. Preliminary report.

Evaluating the joint probability of default is an important task in credit derivative pricing and credit risk management. The market for exotic derivatives with payoffs contingent on the credit quality of a number of reference entities has grown considerably over recent years. Non-linear credit portfolios are quite common all over the world. However the valuation of such structures is technically difficult; most credit models fail to reliably capture multiple defaults. In this paper we discuss the joint distribution of first-passage-time structural models, within a Gaussian framework, providing analytical formulas and approximations for the case of more than two underlying credits components. We will apply this to the pricing of CDS's and CDO's. (Received September 14, 2004)