## Abstract Submitted for the APR05 Meeting of The American Physical Society

## Event Generation for the Run 2 W Mass Measurement IAN VOLL-

RATH, University of Toronto, CDF COLLABORATION — An important contribution to the systematic uncertainty on the Run II W mass measurement comes from the modelling of W boson production and decay. This source of uncertainty will be one of the most significant in future high-statistics measurements. We describe the event generation used for constructing templates for fitting the W mass, including the relevant physics processes influencing the lineshapes of the fit variables. We present systematic uncertainties deriving from the production model, including final state photon radiation and  $p_T^W$ .

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