

Meta-model of a large credit risk portfolio in the Gaussian copula model

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We design a meta-model for the loss distribution of a large credit portfolio in the Gaussian copula model. Using both the Wiener chaos expansion on the systemic economic factor and a Gaussian approximation on the associated truncated loss, we significantly reduce the computational time needed for sampling the loss and therefore estimating risk measures on the loss distribution. The accuracy of our method is confirmed by many numerical examples.