

## Fitting Erlang-Based Mixture Models to Loss Data

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Erlang mixtures are known to have many desirable properties: their survival function and moments have a closed form expression, any continuous distribution on  $(0, \infty)$  can be approximated by an Erlang mixture to any given accuracy. As a result, Erlang mixtures could be ideal candidate models to fit loss data arising from insurance and business. In this presentation, I will present some joint work with my colleagues and students on fitting Erlang-based mixture models to severity and frequency data using tail-made EM algorithms. I will illustrate our approach using loss data from the Operational Riskdata eXchange (ORX).