

**Insurance.** *Pure risk premium*, for damage  $L$

$$P = E\{L\} = \mu_L$$

Loaded premiums

$$P = \alpha\mu_L + \beta\sigma_L + \gamma\sigma_L^2$$

*Problem of ruin.* Reserves  $R_t$ , want

$$\text{Prob} \left\{ \sum_j L_{jt} > R_t + \sum_j P_{jt}, t=1,2,\dots \right\} \leq \varepsilon$$

$j$  sums over risks

One needs distributions of claims and occurrences