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GLOBAL IN SPACE NUMERICAL COMPUTATION OF THE RUIN PROBABILITY

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Abstract. Numerical computation of the ruin probability is discussed. The probability is governed by the Volterra type integral equation with infinite domain of integration. Transforming the infinite interval into a bounded interval, we apply the Chebyshev-Gauss-Radau collocation method to obtain numerical solutions. Aymptotic behavior is also numerically implemented. Numerical experiments of test problems show that our scheme works well.

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