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Option Pricing Without Tears: Valuing Equity-Linked Death Benefits

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Nowadays, many products sold by insurance companies are investment funds wrapped around with (exotic) options and guarantees. These financial options and guarantees should be priced, hedged, and reserved using modern option-pricing theory, which involves sophisticated mathematical tools such as martingales, Brownian motion, stochastic differential equations, and so on. This talk will show that, if the options or guarantees are exercisable only at the moment of death of the policyholder, the mathematics simplifies to an elementary calculus exercise.