

A BIDIMENSIONAL APPROACH TO MORTALITY RISK

ENRICO BIFFIS[◊] and PIETRO MILLOSOVICH[•]

Department of Applied Mathematics, University of Trieste

Piazzale Europa, 1 - 34127 Trieste - Italy

Tel.: +39 040 5587117; Fax: +39 040 54209

[◊]enricob@econ.units.it [•]pietrom@econ.units.it

ABSTRACT. We analyze the evolution over time of portfolios of life insurance contracts referring to different cohorts (or risk classes) of insureds. We model the intensity of mortality as a random field, in order to capture cross-generations (risk classes) effects induced by the on-going management of portfolios of policies. The model proves to be useful for different applications, from mortality modeling to risk-analysis, including the issue of future new business.

Keywords: stochastic mortality, random fields, Cox processes, life insurance portfolios.

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