

Definition, Validation and Comparison of Two Population Models for Austria

Martin Bicher^{1,2}, Barbara Glock², Florian Miksch², Niki Popper^{1,2}
Günter Schneckenreither¹

¹Institute for Analysis and Scientific Computing, TU Wien, Wiedner Hauptstraße
8-10, 1040 Vienna, Austria

²dwh simulation service, dwh GmbH, Neustiftgasse 57-59, 1070 Vienna, Austria
{martin.bicher, niki.popper, guenter.schneckenreither}@tuwien.ac.at
{barbara.glock, florian.miksch}@dwh.at

Abstract. In this work we present two structurally different mathematical models for the prognostic simulation of Austria's population: A time-continuous, macroscopic system dynamics approach and a time-discrete, microscopic agent-based approach. Both models were developed as case studies of a series of population concepts in order to support models for decision-support in Austria's health care system. In the present work we want to focus on the definition, the parametrisation as well as especially the validation process of both population-models. The latter was of special interest as it included a cross-model validation with Statistics Austria's own prognostic model SIKURS.

Keywords: population model, model comparison, validation, cross-model validation

B

Abst
1992
sumr
on th
base

Key