

Preface

This book presents a hands-on introduction to a new discrete choice modeling approach based on the behavioral notion of regret-minimization. This so-called Random Regret Minimization-approach (RRM) forms a counterpart of the Nobel prize winning Random Utility Maximization-approach (RUM) to discrete choice modeling, which has for decades dominated the field of choice modeling and adjacent fields such as transportation, marketing, and environmental economics. Being as parsimonious as conventional RUM-models and compatible with popular software packages, the RRM-approach provides an alternative and appealing account of choice behavior. A variety of empirically well-established behavioral phenomena that are not captured by conventional RUM-models readily emerge from the RRM-model's structure in a way that is consistent with the model's underlying behavioral premises. Since its introduction in 2010, the RRM-approach has been used by a growing number of leading choice modelers in a variety of decision-making contexts, showing a promising potential in terms of model fit and predictive ability. Rather than providing highly technical discussions as usually encountered in scholarly journals covering discrete choice models, this book aims to allow readers to explore the RRM-approach and its potential and limitations hands-on, based on a detailed discussion of examples. This book is written for students, scholars, and practitioners who have a basic background in choice modeling in general and RUM-modeling in particular. It has been taken care that all concepts and results should be clear to readers who do not have an advanced knowledge of econometrics. Following a brief introduction, [Chap. 2](#) presents the RRM-approach to discrete choice modeling. Comparisons with the RUM-based Multinomial Logit-model are provided where relevant. In [Chap. 3](#), the focus is on how to estimate RRM-models and how to interpret estimation results and use them for forecasting—the Chapter discusses data-requirements and software issues, and presents an empirical example in-depth. In [Chap. 4](#), the general applicability of the RRM-model is discussed, and its strong points and limitations are highlighted. [Chapter 5](#) presents a selection of recent developments in RRM-modeling.



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A Tutorial

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