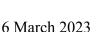University of Wisconsin-Madison

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To whom it may concern,

It is my pleasure to write a review of Dr. Patrícia Martinková's book entitled *Computational Aspects of Psychometric Methods With R*, referred to in this letter as CAPM. By way of context, I have known Dr. Martinková since 2017 primarily through professional societies and meetings that she and I have in common. Dr. Martinková will be hosting the 2024 International Meeting of the Psychometric Society in Prague during my presidency of the society and so we will be having discussions about preparations for that meeting. Nevertheless, I have never collaborated with Dr. Martinková nor do I have any financial relationship with her, and so I feel that I am able to provide an independent review of her book.

Simply put, CAPM is an outstanding piece of work that is certain to be considered the "gold-standard" for psychometric theory and practice. The book is arranged in 10 chapters and five appendices. The main content of the book covers introductory topics such as validity and reliability as well as advanced topics such as item response regression and differential item functioning. The last chapter provides a look into the future on cutting edge advanced topics, many of which have been, and continue to be, explored by Dr. Martinková herself. The appendices provide the background material needed to understand the main content of the book, and thus the book is relatively self-contained. The last appendix provides well-considered exercises connected to each chapter to reinforce learning. Finally, and importantly, the computational aspects of the book are grounded in the language of the R programming environment, and software code is nicely interspersed throughout the chapters to guide the reader in conducting his/her own analyses. Furthermore, there is a Shiny app associated with the book that allows users to engage with the material and to conduct their own analyses in a very user-friendly format. I believe that the integration of the Shiny app will lead to a wide interest to researchers in psychometrics.

There is a great deal to like about this book. Perhaps its strongest feature is the clarity of the writing. Dr. Martinková is not afraid to use equations, and in that sense CAPM is for a slightly more advanced audience, but at the same time, the equations are beautifully explained, and the reader is not left wondering what the equations mean or how they are connected to psychometric theory and practice. Another very strong feature of the book is that it was written by Dr. Martinková herself. It is an understatement to say that Dr. Martinková is widely respected in the psychometric community and a prolific author of very important scientific papers on computational psychometrics. This gives the book a certain "gravitas" that is missing in many of the psychometric books that are currently on the market.

To close, Dr. Martinková has produced a book of outstanding scientific rigor. Over time, as psychometric theory will continue to advance, due in part to Dr. Martinková's own theoretical work, I look forward to future editions of this book. I strongly and positively recommend the defense of the habilitation at the Faculty of Education, and if successful, continued appointment at Charles University.

Sincerely,

David Kaplan, Ph.D.
Patricia Busk Professor of Quantitative Methods