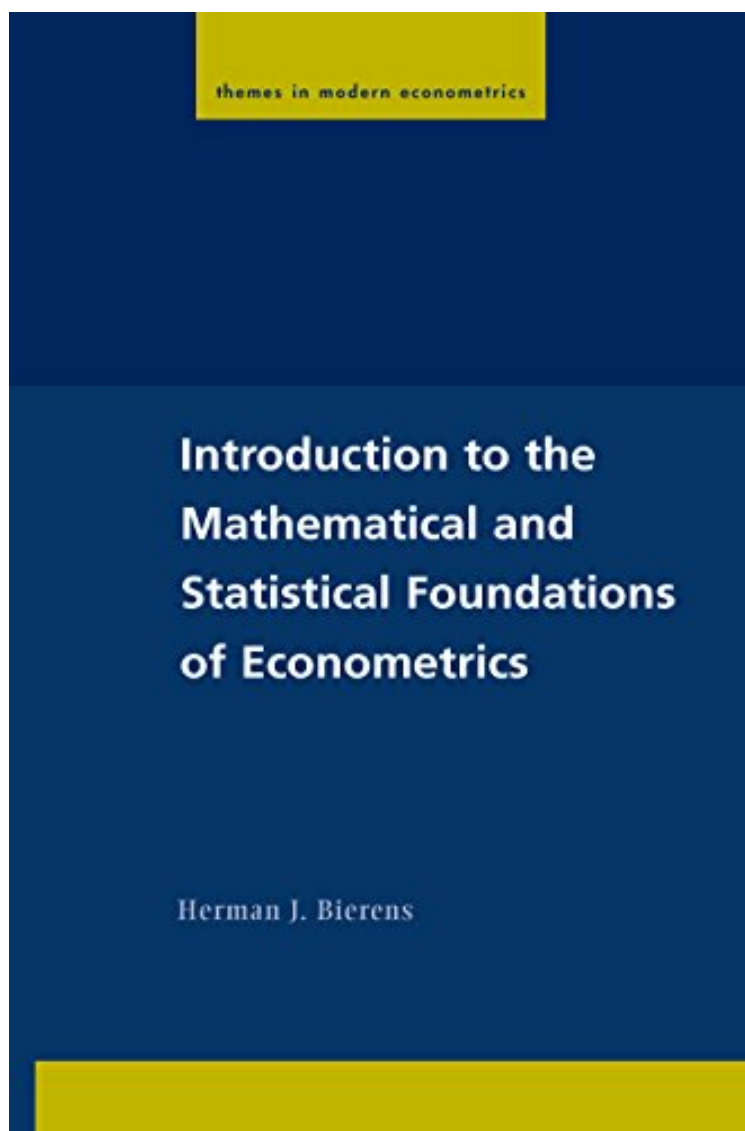


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This book is intended for use in a rigorous introductory PhD level course in econometrics, or in a field course in econometric theory. It covers the measure-theoretical foundation of probability theory, the multivariate normal distribution with its application to classical linear regression analysis, various laws of large numbers, central limit theorems and related results for independent random variables as well as for stationary time series, with applications to asymptotic inference of M-estimators, and maximum likelihood theory. Some chapters have their own appendices containing the more advanced topics and/or difficult proofs. Moreover, there are three appendices with material that is supposed to be known. Appendix I contains a comprehensive review of linear algebra, including all the proofs. Appendix II reviews a variety of mathematical topics and concepts that are used throughout the main text, and Appendix III reviews complex analysis. Therefore, this book is uniquely self-contained.

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About the Author Herman J. Bierens is Professor of Economics at the Pennsylvania State University and part-time Professor of Econometrics at Tilburg University, The Netherlands. He is Associate Editor of the Journal of Econometrics and Econometric s, and has been an Associate Editor of Econometrica. Professor Bierens has written two monographs, Robust Methods and Asymptotic Theory in Nonlinear Econometrics and Topics in Advanced Econometrics (Cambridge University Press 1994), as well as numerous journal articles. His current research interests are model (mis)specification analysis in econometrics and its application in empirical research, time series econometrics, and the econometric analysis of dynamic stochastic general equilibrium models.