**The Mata Book: A Book for Serious Programmers and Those Who Want to Be**

W. Gould, 2018,

College Station, Stata Press,

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Mata is the matrix programming language within Stata that provides new types of objects and functions, similar to those in Gauss or R. It can be used either interactively or as code within a Stata *program*. Mata code executes much faster than Stata commands because it is compiled rather than interpreted. It can also be very memory efficient, in particular by using *views* within the data table as virtual matrices. Mata is therefore likely to interest anyone developing their own Stata commands.

Before this book appeared, anyone like myself who wanted to learn Mata had the choice between very rare courses, or going through the thousand-page Reference Manual (StataCorp, 2017) – not the most thrilling read. William Gould’s “*The Mata book*” nicely fills that gap by providing a pleasant read telling you all you need to know for a good grasp of the language.

The book starts by explaining the specifics of the language and the syntax, then goes into more advanced features, using example programs to illustrate each of the points covered. All through the book, Gould – one of the original developers of Stata in the 1980s and currently StataCorp’s president – shares his tips on writing elegant code to the highest programming standards. If the author’s impressive resumé was not enough, he turns out to be also a skilled writer, and his enthusiasm for Mata is undeniably contagious. Writing a book about a programming language can be a tricky exercise, but Gould is up to the task, and manages to make it an engaging read, providing the right level of details and anecdotes while clearly pointing out what has to be ignored to avoid distraction.

Nevertheless, the book is definitely aimed at programmers, or as the subtitle clarifies, anyone who is *serious* about programming. It is not a concise introduction to Mata, and other resources (for example Baum, 2016 or Drukker, 2015) may be more suitable for statisticians looking only to get a quick grasp of the language, for example to review an ado-file using Mata functions.

In conclusion, this book is bound to become a classic, and highly recommended for any statistician or programmer planning to do some (serious) Mata programming.

Baum, C. F. (2016) *An introduction to Stata programming*. College Station: Stata Press

Drukker , D. M. (2015) *Programming an estimation command in Stata: Mata 101.* <https://blog.stata.com/2015/12/15/programming-an-estimation-command-in-stata-mata-101/> , accessed 22/06/2018

StataCorp, (2017) *Mata Reference Manual.*  <https://www.stata.com/manuals/m.pdf>, accessed 22/06/2018.

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