

Introduction

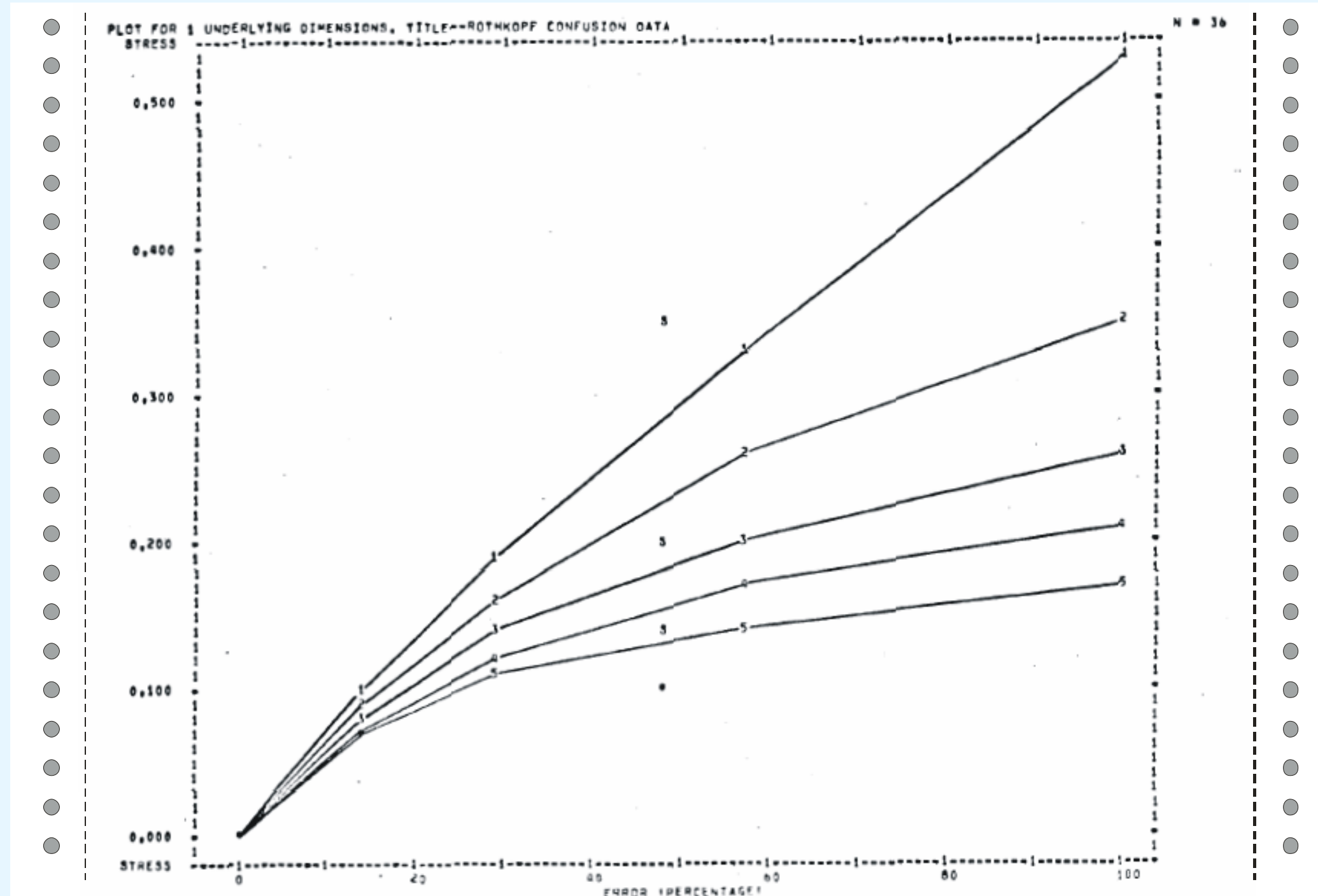
M-SPACE was developed as the first objective aid to the determination of the underlying dimensionality of non-metric multidimensional scaling solutions (using programs like MDSCAL, KYST, MINISSA, ALSCAL). The basis for the original FORTRAN program was described in the following publications:

- Spence, I. and Graef, J. (1973) M-SPACE: A program for the determination of the underlying dimensionality of an empirically obtained matrix of proximities. *Behavioral Science*, 18, 227-228.
- Spence, I. and Ogilvie, J.C. (1973) A table of expected stress values for random rankings in nonmetric multidimensional scaling. *Multivariate Behavioral Research*, 8, 511-517.
- Spence, I. and Graef, J. (1974) The determination of the underlying dimensionality of an empirically obtained matrix of proximities. *Multivariate Behavioral Research*, 9, 331-341.
- Spence, I. (1979) A simple approximation for random rankings stress values. *Multivariate Behavioral Research*, 14, 355-365.
- Spence, I. (1972) An aid to the estimation of dimensionality in nonmetric multidimensional scaling. *UWO Research Bulletin #229*, March 1972.
- Spence, I. and Graef, J. (1973) How to use M-SPACE, a program for the determination of the underlying dimensionality of an empirically obtained matrix of proximities. *UWO Research Bulletin #257*, February, 1973.

Although M-SPACE has been used successfully by researchers for almost three decades, the original program is not convenient in today's GUI environments. We have developed a new, cross-platform version that will run on the MS Windows, Macintosh, and Linux operating systems. M-SPACE II may be downloaded from <http://www.psych.utoronto.ca/~spence/MSPACE.htm>

The Original M-SPACE

1. Input was either on cards or in card-like format
2. Only text-based line printer output was available.
3. The user was required to draw lines, by hand, on the text-based printer output to interpolate between the points of Monte Carlo data.



M-SPACE II

1. Input is via a simple onscreen form.
2. Graphical output is available onscreen (in 2 sizes), or in PDF, BMP, WMF, SVG, Java, and PNG formats.
3. Interpolating lines are drawn automatically and may be colored or black-and-white at the user's option.

