

**ZMATH 2008b.00452**

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**Shopping for efficient confidence intervals in structural equation models.**

InterStat, No. 7, 15 p. (2006).

Summary: Most users of Structural Equation Models are aware that Wald-type standard errors for parameter estimates can vary remarkably depending on the arbitrary choice of how the scale is identified. When the focus is on  $H_0$ : coefficient is 0, tests based on a likelihood-ratio are invariant to the scale identification. However, a simple example shows that confidence intervals based on the likelihood ratio exhibit the same problem. A series of examples suggests that shopping for the scale identification that gives the best relative precision for a certain parameter has very little negative impact on coverage probabilities, and can yield substantially tighter confidence intervals.

*Classification:* K85

*Keywords:* structural equation models; log-likelihood; latent variables; parameter estimates; confidence intervals