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# Applied Longitudinal Analysis



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# A rigorous, systematic presentation of modern longitudinal analysis

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Longitudinal studies, employing repeated measurement of subjects over time, play a prominent role in the health and medical sciences as well as in pharmaceutical studies. An important strategy in modern clinical research, they provide valuable insights into both the development and persistence of disease and those factors that can alter the course of disease development.

Written at a technical level suitable for researchers and graduate students, *Applied Longitudinal Analysis* provides a rigorous and comprehensive description of modern methods for analyzing longitudinal data. Focusing on General Linear and Mixed Effects Models for continuous responses, and extensions of Generalized Linear Models for discrete responses, the authors discuss in detail the relationships among these different models, including their underlying assumptions and relative merits. The book features:

- A focus on practical applications, utilizing a wide range of examples drawn from real-world studies
- Coverage of modern methods of regression analysis for correlated data
- Analyses utilizing SAS®
- Multiple exercises and “homework” problems for review

An accompanying Web site features twenty-five real data sets used throughout the text, in addition to programming statements and selected computer output for the examples.

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