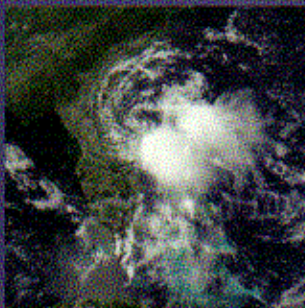




"Pierre Dutilleul has written a book that has a friendly style, includes pertinent examples as well as explanations and motivations ... I know of no other book quite like it. I recommend the book highly to students, teachers, and researchers in fields including biology, ecology, and environmental science as well as in mainstream and applied statistics."

From the foreword by
David Brillinger
University of California, Berkeley

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- Do earthquakes occur in specific locations at regular intervals in time?
- How do the mean value and the variance of tree variables change over time?
- Are air and soil temperatures correlated at particular scales spatially and temporally?

Attempts by ecologists to establish models for predicting the growth of a population or the fluctuations of a natural resource can be confounded by environmental heterogeneity. *Spatio-Temporal Heterogeneity* explores a range of available statistical methods to help ecologists in the attempt to unravel complexities, demonstrating how to place these changes into an understandable statistical framework.

It addresses several key questions, including how to interpret the parameters of statistical models in relation to the biological and environmental realities; how to design a study to collect the best sample data; and how to avoid pitfalls in modeling, design, statistical assessment, and interpretation. Dutilleul uses a variety of examples to facilitate understanding, from plant ecology, earth and atmospheric sciences, animal biology, forestry, and limnology. The accompanying CD-ROM contains MATLAB® and SAS codes to aid analyses.

Cover illustration: tropical storm Edouard creates a bank of clouds off the south-east Atlantic Coast on September 2, 2002. Image courtesy of Jacques Desclotres, MODIS Land Rapid Response Team at NASA GSFC.

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