Soft Methods in Statistical Inference and Data Analysis

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Description:

The growing challenges faced by scientists and practitioners—from engineering to social sciences, medicine, and beyond—are driving the need for new methods and tools to handle and process uncertainty. This involves combining classical probability theory and statistics with modern computational methods and techniques that integrate various aspects of uncertainty (including randomness, imprecision, ambiguity, etc.) and machine learning. This special session aims to bring together theorists and practitioners in the fields of statistical reasoning and data analysis to discuss emerging problems, exchange ideas, and to develop new inference methods that improve understanding and solve specific problems.

Topics of interest include but are not limited to:

 • Analysis of censored or missing data

 • Analysis of fuzzy data

 • Bayesian methods

 • Clustering and classification

 • Data mining

 • Fuzzy random variables

- Fuzzy regression methods

- Granular computing

- Interval data

- Machine learning

- Possibility theory

- Random sets

- Robust statistics

- Semi-supervised learning

- Streaming data

- Statistical software for imprecise data

- Time series analysis and forecasting