

Call for Papers

Special session on:

Fuzzy Regression Analysis and its applications

Organizers

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Abstract

Fuzzy regression is a powerful tool to estimate the relationship among variables in environments where uncertainty exists. In real-world applications this uncertainty may derive from the granularity of information for generalization purposes, the influence of human subjective judgement and partially available information, due to miss-recording or inaccurate measurements. One of the effective ways of capturing the useful information in such environments is with the application of fuzzy regression models.

This special session aims at discussing fuzzy regression analysis either with probabilistic or least squared approaches with their applications to engineering problems. As for probabilistic and least squared approaches, introducing new approaches based on linear programming and designing new similarity measures are of interest. Due to the existence of outliers and noise in data in many real-world applications, fuzzy regression models which are capable of detecting outliers and not being effected by noise are highly in demand.

Since fuzzy regression is widely applicable in operations research and complex systems analysis, we invite all the related researchers from the fields of computer science and engineering, economy, finance, marketing, social sciences, and healthcare.

Topics of interest include, but are not limited to the theory and applications of:

- Fuzzy linear regression
- Fuzzy polynomial regression
- Non-parametric fuzzy regression
- Tackling the Spread Increasing problem in fuzzy regression models
- Fuzzy regression with outlier detection
- Application of hybrid optimization to fuzzy regression
- Engineering application of fuzzy regression

Designing new similarity/model fitting measures for least squared fuzzy regression models

Keywords

Fuzzy regression, spread increasing problem, non-parametric fuzzy regression, outlier detection, hybrid optimization for fuzzy regression, similarity measures

Important Dates:

Paper submission: Jan. 15, 2011

Notification of paper acceptance: Mar. 31, 2011

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Conference: Jun. 28 - Jun. 30, 2011

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