

Colloquium

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Thursday, November 11, 2010 at 3pm in Bell Hall 143

Discrete Fuzzy Transforms and their Applications in Data Processing

The theory of fuzzy (F-)transforms can be seen as a bridge between fuzzy modeling and the theory of linear (in particular, integral) transforms. In this talk, we will show backgrounds of the ordinary F-transform and a higher order F-transform. We will explain different ways of achieving a desired quality of approximation by the, so called inverse F-transform. Various applications demonstrate the universality of this special technique of fuzzy modeling. We will mention two of them: image processing, and analysis and forecasting of time series. The talk will be self-contained, illustrated by pictures and provided with all necessary explanations.