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Is time fuzzy? (English) Zbl 1451.62167

Kreinovich, Vladik (ed.), Statistical and fuzzy approaches to data processing, with applications to econometrics and other areas. In honor of Hung T. Nguyen's 75th birthday. Cham: Springer. Stud. Comput. Intell. 892, 47-54 (2021).

Summary: Imprecision of time measurements, subjective perception of time, flexible management of time, are examples of reasons to use a fuzzy modeling of time. Although all fuzzy set-based knowledge representations can be applied to time, its particular nature leads to specific treatments. We give examples of fuzzy methods to deal with time, in temporal reasoning, linguistic summarization of data, forecasting and scoring and also in spatio-temporal reasoning.

For the entire collection see [Zbl 1448.62015].

MSC:

62R07 Statistical aspects of big data and data science
62M10 Time series, auto-correlation, regression, etc. in statistics (GARCH)
62M86 Inference from stochastic processes and fuzziness
03E72 Theory of fuzzy sets, etc.

Keywords:

time; fuzzy set; possibility theory; temporal reasoning; linguistic summarization; time series; forecasting

Full Text: DOI

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