

Fuzzy Time Intervals – System Description of the FuTI–Library

Hans Jürgen Ohlbach (Edgar Stoffel)

Inst. für Informatik, LMU Munich

Background: The CTTN System

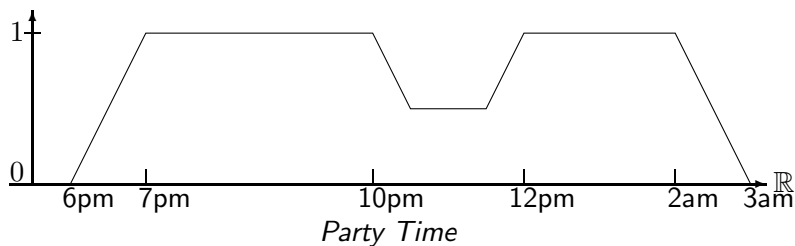
CTTN: Computational Treatment of Temporal Notions



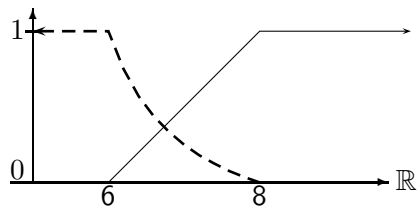
Components:

- time points and crisp and fuzzy temporal intervals (the FuTI library)
- periodic temporal notions (the PartLib library)
- the GeoTemporal Specification language (GeTS)
- calendars and various support modules

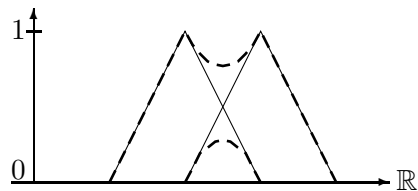
Fuzzy Time Intervals: An Example



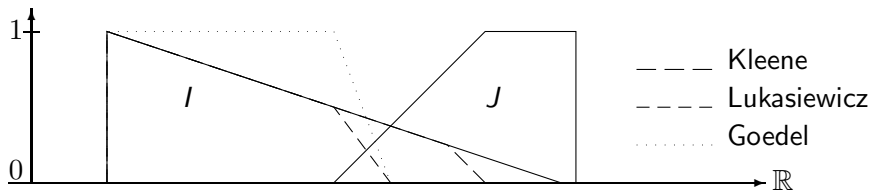
Set Operations



λ -Complement for $\lambda = 2$

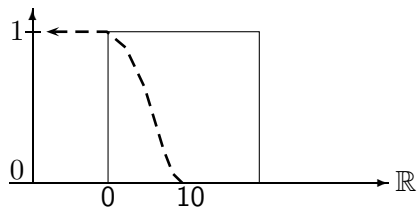


Hamacher Intersection and Union

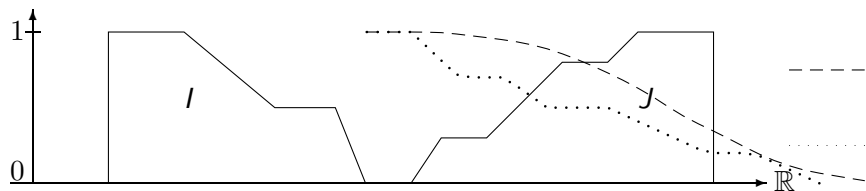


Set Difference $I \setminus J$

Relations

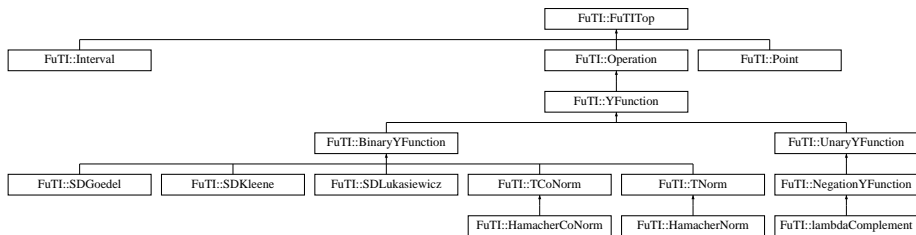


Fuzzy Point-Interval Relation



Interval-Interval Before Relation

The Class Hierarchy



<http://www.pms.ifi.lmu.de/CTTN/FuTI/index.html>