Der Sonderforschungsbereich 991 "Die Struktur von Repräsentationen in Sprache, Kognition und Wissenschaft" lädt herzlich ein zum Vortrag von

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Could tense and aspect be finite-state?

In a recent book, Wolfgang Klein more than once makes the point that many languages \have no categories as tense and aspect in their grammatical system" and \in those languages which do have it, it is largely redundant." Klein argues that \any real understanding of how the expression of time works requires a somewhat broader perspective" including \adverbials, inherent temporal features of the verb and discourse principles" (not unlike, one might add, the perspective of DRT). A measure of the breadth of that perspective is its computational requirements, which I propose to explore through segmentations (implicit in Klein's discussion of segmentability) over interval temporal logics (widely used in formal semantics since Bennett and Partee 1972). I present a dichotomy within interval temporal propositions, and compare it to Krifka's account of telicity in terms of quantized predicates, as well as an event-based simplication (from Rothstein 2004) of Dowty's analysis of Aktionsart. I claim that the segmentations required by tense and aspect can be formulated as strings that are amenable to finite-state methods (FSMs). The attraction of FSMs is not only that less is more (amenability to FSMs having pleasant consequences for reasoning) but that the processing perspective opened up by FSMs enriches formal investigations into temporality, offering an account of granularity, inertia and forces. I defend three inter-related hypotheses that taken together make tense and aspect finite-state.

(H1) Timelines interpreting interval temporal logic are segmentable as strings representing situations.
(H2) The relations between strings required by tense and aspect are computable by finite-state transducers.
(H3) The forces behind the strings can, up to bounded granularity, be represented as finite automata.
Under these hypotheses, world-time pairs arise from runs of finite automata.

Studierende und andere Interessierte sind herzlich willkommen.