

EINLADUNG

Zeit: Dienstag, 22. Februar 2011, 10.00 Uhr
Ort: Raum 5056, Ahornstr. 55
Referent: Dipl.-Inform. Tobias Ganzow
Thema: Definability and Model Checking:
The Role of Orders and Compositionality

In descriptive complexity theory we relate the expressive power of logics, i.e. descriptive resources needed to define a property, to computational resources such as time and space needed to decide the respective property. However, most of the known correspondences only hold for linearly ordered structures. We investigate a case in which weaker orderings suffice, and further consider the concept of order-invariant definability.

In the second part, we present a compositional model checking technique for a class of finitely representable infinite structures. These structures are characterised by an equational description of how they are composed from smaller parts. We show that weak monadic second-order formulae speaking about such a structure as a whole can be decomposed into formulae speaking about separate parts of the structure. This technique is exploited to devise a model checking algorithm that is based on solving a specific game on a finite graph.

Es laden ein: Die Dozenten der Informatik