



Universität Konstanz

Logic in Konstanz

Einladung

Im Kolloquium *Logik* hält

Lorenzo Galeotti

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am **Montag, 24.06.2019**, einen Vortrag zum Thema:

*Order types of models of syntactic
fragments of Peano Arithmetic*

Der Vortrag findet um **15:15 Uhr** in **F426** statt.
Alle Interessenten sind herzlich eingeladen.

Abstract: One well-known consequences of the Compactness Theorem is the existence of non- standard models of arithmetic. Particularly interesting in this context is the study and classification of order types of these models.

In this talk we consider three operations, unary successor, binary addition and multiplication and their associated languages. We will study syntactical subsystems of arithmetic obtained by restricting the language to subsets of these operations.

As in the classical case, the Compactness Theorem can be used to prove the existence of non-standard models of these subsystems. We will study the possible order types occurring as order types of non-standard models of these systems and how they relate to each other.

Finally we will use formal power series to generate non-standard models of these syntactical subsystems and we will see how these models can be used to study the cardinality of the set of possible order types of syntactical subsystems of arithmetic.

C. Antos, S. Kuhlmann
Koordinatorinnen Kolloquium