



Einladung zum Oberseminar Mathematische Logik

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Reverse mathematics of Ramsey-theoretic statements over a weaker base theory

Reverse mathematics is a research programme in mathematical logic which aims at classifying mathematical theorems according to their logical strength. One way of carrying out such a logical analysis of a given theorem is to express it in the language of second-order arithmetic and then, working in a fixed base theory, try to prove implications and nonimplications between the theorem and some well-understood arithmetical axioms. One of the most interesting and difficult to analyse theorems in reverse mathematics is Ramsey's theorem for pairs and two colours (RT_2^2), which says that for every coloring of unordered pairs of natural numbers with two colours there exists an infinite set on which the colouring is constant. In the first part of the talk, I will give a brief introduction to classical results on RT_2^2 over the usual base theory RCA_0 . Then, I will present our main results about RT_2^2 and some related combinatorial principles over a weaker set of axioms which allows for a finer analysis of these theorems.

Ort: Mathematik Ost, Seminarraum 01.003

Zeit: Montag, 05.02.2024 16:15

Zu diesem Vortrag laden wir Sie herzlich ein.

gez. Anton Freund