SFB–Seminar

Am Montag, dem 18.11.1996 findet folgender Vortrag statt:

Compactness and Combinatorics

W. Deuber

Der Vortrag beginnt um 16 Uhr im Raum V2-205.

Es gibt Kaffee und Tee im Blauen Salon schon um 15:30 Uhr.

Abstract

Classical combinatorics counts and enumerates finitely many objects. A more modern approach also deals with the structure of infinite classes of mathematical objects.
In most cases some finiteness condition is the essential ingredient for approaching these situations. Compactness is the prototypical finiteness condition. Moreover, Tychonoff's theorem is the appropriate variant of the axiom of choice.
In this lecture we shall exhibit how compactness arguments may be used to prove existence results in combinatorics. Also, we show the relation or non-relation to algorithmic complexity theory.
Finally, we shall indicate how the Stone-Čech-compactification of a semigroup in combination with the "Hauptsatz der Informatik" leads to nice proofs in Ramsey theory and in this way to an algebraisation of theories on discrete structures in mathematics.

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