

**Ulrich Kohlenbach**

*Functional interpretations of proofs in ergodic theory and combinatorics*

Functional interpretations from proof theory are the main tool in the current “proof mining” program. This program aims at extracting new data such as uniform effective bounds from ineffective proofs in different areas of mathematics. We will give a survey on these methods and recent uses in ergodic theory. Applications of these methods to Ramsey’s theorem for pairs and related principles will be addressed in A. Kreuzer’s talk.