

GENERALIZED DESCRIPTIVE SET THEORY AND COMBINATORICS – THE COMPLEXITY OF CLUB FILTERS

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ABSTRACT. The investigation of the structural properties of club filters on uncountable regular cardinals plays a central role in modern set theory. In particular, questions about the complexity of these filters motivated much of the development of generalized descriptive set theory. In my talk, I will start with a survey of results connecting questions about the definability of club filters with their structural properties. Afterwards, I will present some recent results about the complexity of club filters on ω_2 in the presence of forcing axioms.

This is joint work in progress with Sean Cox (VCU Richmond).

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