

# Generalized side conditions

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## Resumo

In this talk I would like to present the method of generalized side conditions, first proposed by Neeman in 2011: a method that allows to give uniform consistency proofs for the existence of objects of size  $\aleph_2$ . Generally speaking a poset that uses models as side conditions is a notion of forcing whose elements are pairs, consisting of a working part which is some partial information about the object we wish to add and a finite  $\in$ -chain of elementary substructures of  $H(\theta)$  (for some regular cardinal  $\theta$ ) whose main function is to preserve cardinals. I will present in details the pure generalized side conditions poset and I will briefly show how to force, with finite conditions, the forcing axiom  $\text{PFA}(T)$ , a relativization of PFA to proper forcing notions preserving a given Souslin tree  $T$ . If I have time I will also discuss the possibility to generalize this method and its link with the problem of generalizing Forcing Axioms.

## Referências

- [1] I. Neeman, *Forcing with sequences of models of two types*, to appear in the Notre Dame Journal of Formal Logic.
- [2] B. Veličković and G. Venturi, *Proper forcing remastered*. In *Appalachian Set Theory* (Cummings, Schimmerling, eds.), LMS lecture notes series, 406, 331–361, 2012.
- [3] G. Venturi, *Side conditions and Souslin trees*, submitted.