



Mês de: Março 2010

SEMINÁRIO DE LÓGICA MATEMÁTICA

Dia 4 de Março (quinta-feira), às 18h, na Sala 3-10

“Model theoretic constructions in many-valued modal logics”

(This is joint work with C. Koutras and C. Nomikos)

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Abstract:

We build upon a family of many-valued modal logics introduced by M. Fitting in the early '90s. In this family, every edge of a Kripke-frame is labelled with an element of an underlying Heyting algebra H of truth values, and the definition of a valuation of the sentences in H is extended appropriately. In particular, if H is finite, the semantics corresponds to a multiple-expert semantics of interest to Knowledge Representation where every value from H define a group of experts.

We generalize the following classical constructions from modal logic to many-valued modal logic:

- generated subframes
- disjoint unions
- bounded morphisms
- canonical extensions
- bisimulations

We prove truth-invariance results under these constructions. The truth-invariance results are relative to a value from H and they

correspond to invariance of the epistemic consensus of a predefined group of experts.

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