



Mês de: Fevereiro 2011

SEMINÁRIO DE LÓGICA MATEMÁTICA

Dia 24 de Fevereiro (quinta-feira), às 17h, na Sala A2-25

“Truncation closed embeddings of valued fields in generalised series fields”

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(Joint work with A. Fornasiero and F.-V. Kuhlmann)

Abstract:

We study necessary and sufficient conditions for a valued field K with value group G and residue field k (with $\text{char } K = \text{char } k$) to admit a truncation closed embedding in the field of generalized power series $k((G; f))$ (with factor set f). We show that this is equivalent to the existence of a family (tower of complements) of k -subspaces of K which are complements of the (possibly fractional) ideals of the valuation ring, and satisfying certain natural conditions. We explain the relation of truncation closed embeddings to the existence of integer parts for real closed fields. We discuss an exponential analogue for exponential real closed fields.

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