



**Mês de: Junho 2011**

## **SEMINÁRIO DE LÓGICA MATEMÁTICA**

**Dia 2 de Junho (quinta-feira), às 17h, na Sala A2-25**

“Some Constructions to Prove Lindenbaum Theorems (Part I)”

*René Gazzari*

(CENTRIA, UNL)

**Abstract:**

Miller raises in his paper "Some Lindenbaum Theorems Equivalent to the Axiom of Choice" the problem to re-prove the well-known equivalences of some Lindenbaum theorems (each equivalent to the Axiom of Choice) without an application of the Axiom of Choice.

After a brief introduction of deductive systems and Miller's project a formal criterion for Miller's project is proof theoretically developed, which allows to decide, if a given proof is a solution to Miller's problem or not. Next, some general aspects of deductive systems and their canonical constructions are presented, before special constructions were given, which allow to prove a number of Lindenbaum theorems without the application of the Axiom of Choice. Not granting a complete solution this way, at least a proof theoretical approach is chosen, to find a final solution to Miller's problem.

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