

# SEMINÁRIO

## LÓGICA MATEMÁTICA

**23 de Setembro | 16h00 | sala 6.2.33**

### **On the functional interpretation of functional types**

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**Abstract:**

Functional interpretations such as Gödel's Dialectica or Kreisel's modified realizability work by translating logical dependencies into functional dependencies. This means that even if one starts with a purely arithmetical formula  $A$ , its interpretation will involve functionals of arbitrary type level, depending on the complexity of the logical dependencies in  $A$ . When the interpreted formula already contains quantification over functions or functionals, one has a choice on how to interpret these quantifications. In this talk we review the current approaches, the problems they face (e.g. not validating the extensionality axiom), and propose a new way of interpreting such quantifications.