SEMINÁRIO DE LÓGICA MATEMÁTICA

Dia 8 de Junho (quarta-feira), às 15H00, na sala 6.2.38

Towards an hyperalgebraic theory of non-algebrizable logics: the case of mbC

Marcelo E. Coniglio

(INSTITUTE OF PHILOSOPHY AND HUMAN SCIENCES - CENTRE FOR LOGIC, EPISTEMOLOGY AND THE HISTORY OF SCIENCE, UNIVERSIDADE DE CAMPINAS, BRAZIL)

Abstract:

Multialgebras (or hyperalgebras) have been very much studied in the literature. In the realm of Logic, they were considered by Avron and his collaborators under the name of non-deterministic matrices (or Nmatrices) as a useful semantics tool for characterizing some logics (in particular, several logics of formal inconsistency or LFIs) which cannot be characterized by a single finite matrix. In particular, these LFIs are not algebraizable by any method, including Blok and Pigozzi general theory. Carnielli and Coniglio introduced a semantics of swap structures for LFIs, which are Nmatrices defined over triples in a Boolean algebra, generalizing Avron's semantics. In this talk we develop the first steps towards the possibility of defining an algebraic theory of swap structures for LFIs, by adapting concepts of universal algebra to multialgebras in a suitable way. This is a joint work with Aldo Figallo-Orellano and Ana Claudia Golzio.

Local: Departamento de Matemática, C6 - Piso 2, 6.2.38