Ciências
ULisboa

SEMINÁRIO
LÓGICA MATEMÁTICA

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Non-tightness in class theory and second-order arithmetic

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ABSTRACT:

A theory T is tight if different deductively closed extensions of T (in the same language) cannot be bi-interpretable. Many well-studied foundational theories are tight, including PA (Visser, 2006), ZF, Z_2 (second order arithmetic), and KM (Enayat, 2017). In this presentation, we study subsystems of these latter two theories. We start with a brief exposition of the tightness phenomena and then we prove that restricting the Comprehension schema of Z_2 and KM gives non-tight theories. These results provide evidence that tightness characterizes Z_2 and KM in a minimal way.

This talk is about joint work with Kameryn Williams, Sam Houston University.

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