

Faculdade de Ciências da Universidade de Lisboa
cmafcio@fc.ul.pt Tel. (+351) 21 750 00 27

SEMINÁRIO DE LÓGICA MATEMÁTICA

Dia 9 de Junho (sexta-feira), às 15:00, sala 6.2.33

An S4F-related monotonic modal logic

Ezgi Su
(Universidade de Lisboa, CMAFCIO)

Abstract:

This paper introduces a novel monotonic modal logic, allowing us to capture the nonmonotonic variant of the modal logic S4F: we add a second new modal operator into the original language of S4F, and show that the resulting formalism is strong enough to characterise the logical consequence of (nonmonotonic) S4F, as well as its minimal model semantics. The latter underlies major forms of nonmonotonic logic, among which are (reflexive) autoepistemic logic, default logic, and nonmonotonic logic programming. The paper ends with a discussion of a general strategy, naturally embedding several nonmonotonic logics of a similar floor structure on which a (maximal) cluster sits.

Seminário financiado por Fundos Nacionais através da FCT – Fundação para a Ciência e a Tecnologia no âmbito do projeto UID/MAT/04561/2013