

# SEMINÁRIO DE LÓGICA MATEMÁTICA

Dia 18 de Fevereiro (segunda-feira), sala **8.2.04** às 16:00

## On conceptual aspects of paraconsistency as preservation of evidence

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### Abstract:

The aim of this talk is to present the central ideas of an approach to paraconsistency that understands contradictions as conflicting evidence, emphasizing its conceptual aspects and philosophical motivations. Evidence is a notion weaker than truth, in the sense that there may be evidence available for a proposition  $A$  even if  $A$  is in fact not true. The duality between intuitionistic logic (understood as a logic concerned with constructive proof, a notion stronger than truth) and paraconsistent logic is discussed, both from the technical and the conceptual points of view. Natural deduction systems able to express preservation of evidence and to recover classical logic for propositions taken as true or false are presented. These systems are the basic logic of evidence (BLE) and the logic of evidence and truth (LETj). Adequate bi-valued semantics and decision procedures are presented for BLE and LETj. A paraconsistent probabilistic semantics that intends to quantify the evidence available for a given proposition is also presented and discussed.

(Joint work with Walter Carnielli)

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