

Seminars of the Department of Logic

These Degrees go to Eleven: Fuzzy Logics and Graded Predicates

Carles Noguera and Berta Grimau

(Institute of Information Theory and Automation and
Institute of Philosophy, Czech Academy of Sciences)

In the literature on vagueness one finds two very different kinds of degree theory. The dominant kind of account of gradable adjectives in formal semantics and linguistics is built on an underlying framework involving bivalence and classical logic: its degrees are not degrees of truth. On the other hand, fuzzy logic based theories of vagueness—largely absent from the formal semantics literature but playing a significant role in both the philosophical literature on vagueness and in the contemporary logic literature—are logically nonclassical and give a central role to the idea of degrees of truth. Each kind of degree theory has a strength: the classical kind allows for rich and subtle analyses of ordinary language constructions such as the positive and comparative forms of gradable adjectives, while the fuzzy kind yields a compelling solution to the sorites paradox. In this talk we will argue that the fuzzy kind of theory can match the benefits of the classical kind but not vice versa. We develop a new version of the fuzzy logic approach that—unlike existing fuzzy theories—yields compelling analyses of ordinary language constructions such as the positive and comparative forms of gradable adjectives, while retaining the advantage of genuinely solving the sorites paradox. At the same time we will argue that a bivalent, classical approach to vague predicates cannot form the basis for an equally convincing solution to the sorites. As an overall conclusion we will defend that the nonclassical, fuzzy kind of degree theory is superior.

Thursday, March 18 at 14:00

Zoom Meeting:

cesnet.zoom.us/j/96869302116?pwd=bHlFektFMi9lZXBUeDd5WHM0RmE3QT09

Meeting ID: 968 6930 2116

Passcode: 082189