

- JOÃO MARCOS, *Simulating negation in positive logic*.  
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The first part of this talk will consider what happens when one adds a new axiomless 0-ary constant to (propositional) positive logics (cf. [2]), providing conservative extensions of them into ‘logics of refutability’ (cf. [3]) or of ‘assertibility’. The second part will show that the resulting logics are essentially *non-truth-functional*, and then consider what happens when one adds axioms that forces this new constant to behave as the supremum or as the infimum of the corresponding algebras of values (cf. [5]). The third part will evaluate the behavior and propose adequate formal non-deterministic semantics (cf. [1]) for several unary constants defined with the help of the above 0-ary constant, and show in which circumstances such unary constants behave as *negations* or alternatively as *identity*-like connectives (cf. [4]). The final picture will display, among other things, the relations that hold between the positive fragments of both intuitionistic and classical logic, as well as Johansson’s minimal intuitionistic logic, Curry’s logic of classical refutability, full intuitionistic logic and full classical logic, and also their paracomplete relatives.

[1] ARNON AVRON AND IDDO LEV, *Non-deterministic multiple-valued structures*, ***Journal of Logic and Computation***, vol. 15 (2005), pp. 241–261.

[2] HASKELL B. CURRY, *On the definition of negation by a fixed proposition in inferential calculus*, ***The Journal of Symbolic Logic***, vol. 17 (1952), no. 2, pp. 98–104.

[3] HASKELL B. CURRY, ***Foundations of Mathematical Logic***, McGraw-Hill, 1963.

[4] JOÃO MARCOS, *On negation: Pure local rules*, ***Journal of Applied Logic***, vol. 3 (2005), no. 1, pp. 185–219.

[5] ———, *What is a non-truth-functional logic?*, ***Studia Logica***, vol. 91 (2009), no. 3, in print.