Adattare il sistema T di Goedel alla complessità computazionale

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Starting from Bellantoni-Cook's and Leivant's polytime function algebras, the last fifteen years have seen many proposals of formal systems implicitly characterizing complexity classes. All these systems control recursion with some form of stratification (Leivant) or restriction on the allowed function calls (Bellantoni-Cook), or duplication (Girard: light logics). After reviewing some of these proposals, I will present a variant of Goedel's T in which simple constraints on duplication and/or stratification allow the characterization of the primitive recursive, elementary, or polynomial functions.

[The results are joint work with U. Dal Lago and (for polytime) L. Roversi]