СЕКЦИЯ

„АЛГЕБРА И ЛОГИКА”

Драги колеги,
На 5 февруари 2021 г. (петък) от 13:00 часа ще се проведе дистанционно заседание на семинара по „Алгебра и логика”.
Доклад на тема

Reduction Calculus of Type-Theory of Acyclic Algorithms, II

ще изнесе Русанка Луканова.

Докладът ще бъде продължение на доклада изнесен на 29.01.2021.

Семинарът ще се проведе посредством платформата **Zoom** и всеки желаещ може да се присъедини като последва линка, зададен на страницата на семинара.

От секция „Алгебра и логика” на ИМИ – БАН

http://www.math.bas.bg/algebra/seminarAiL/

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Abstract

In 1989, Moschovakis [1] initiated a new theory of the mathematical notion of algorithm, within untyped, full recursion. In 2006, Moschovakis [2] introduced the formal language of Type-Theory of Recursion (TTR), which models the notion of algorithm and concepts of meaning in typed semantic structures. The focus of [2] is on Type-Theory of Acyclic Algorithms (TTAR) for computations that end up after a finite number of steps. The approach, in its varieties, with full and acyclic recursion, provides for new developments of type theory of computation and new applications to computational syntax-semantics interfaces in programming and natural languages.

In this talk, I present the formal language (LAR) of TTAR, by extending it with a restrictor operator that sets conditions on denotations of terms. In addition, the operator defines restricted memory and parameters. TTAR provides two kinds of semantics of the formal language LAR, denotational and algorithmic. The reduction system of TTAR is essential for the notion of algorithm and syntax-semantics interfaces. I shall overview the reduction calculus and some of the theoretical results of TTAR.

[1] Yiannis N Moschovakis. The formal language of recursion. Journal of Symbolic Logic, 54(04):1216–1252, 1989.

[2] Yiannis N. Moschovakis. A Logical Calculus of Meaning and Synonymy. Linguistics and Philosophy, 29(1):27–89, 2006.