

СЕМИНАР

„АЛГЕБРА И ЛОГИКА”

Драги колеги,

**Следващото заседание на семинара ще се проведе
на 10 ноември 2017 г. (петък) от 13:00 часа
в зала 578 на ИМИ – БАН.**

Доклад на тема

Някои нови резултати за разширени контактни алгебри

ще изнесе Татяна Иванова.

Поканват се всички желаещи.

От секция „Алгебра и логика” на ИМИ – БАН

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

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Abstract

In the classical Euclidean geometry the notion of point is taken as one of the basic primitive notions. In contrast the region-based theory of space (RBTS) has as primitives the more realistic notion of region as an abstraction of physical body, together with some basic relations and operations on regions. RBTS has simpler way of representing of qualitative spatial information.

Contact algebra is one of the basic tools in RBTS. We consider in a topological contact algebra the predicate "internal connectedness". This predicate cannot be defined in the language of contact algebras. Because of this we add to the language a new ternary predicate symbol \vdash and we consider extended contact algebras (ECAs). The logic for ECAs is decidable and the complexity is PSPACE-complete. We consider relational semantics for ECAs in different languages, using equivalence relations, and obtain completeness theorems with respect to relational semantics. We consider a semantics of kind 3 for ECAs and obtain a corresponding completeness theorem.