

# СЕКЦИЯ

## „АЛГЕБРА И ЛОГИКА”

Драги колеги,

На 25 март 2022 г. (петък) от 13:00 часа ще се проведе дистанционно заседание на семинара по „Алгебра и логика”.

Доклад на тема

### **An Application of Separation in Discrete Time Interval Temporal Logic to Branching Time**

ще изнесе Димитър Гелев.

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 this talk we make an application of our separation theorem for discrete time Interval Temporal Logic (ITL) to the study of Interval-based Computation Tree Logic (ICTL\*). We prove that the expressibility of the expanding modalities and, most importantly, propositional quantification, carry over from linear time ITL to the branching time system of ICTL\*. The relevance of this follows from the fact that point-based propositionally quantified CTL\* (QCTL\*) is the established intermediate language for temporal logics of agency as propositional quantification enables expressing the existence of strategies with given temporal properties. By moving to ITL we move a step further, using the expressibility of propositional quantification in the logic, which is markedly more expressive than point-based CTL\* and facilitates the compositionality of specifications.