

# СЕКЦИЯ

## „АЛГЕБРА И ЛОГИКА”

Драги колеги,

На 6 юни 2025 г. (петък) от 12:30 часа в зала 578 на ИМИ-БАН и онлайн чрез платформата zoom ще се проведе хибридно заседание на семинара по Алгебра и логика.

Доклад на тема

### **Holographic probe branes and artificial neural networks**

ще изнесе

Веселин Филев (ИМИ-БАН).

От секция „Алгебра и логика” на ИМИ – БАН

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

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#### **Abstract:**

In holography, flavour probe branes are used to introduce fundamental matter to the AdS/CFT correspondence. At a technical level, the probes are described by extremizing the DBI action and solving the Lagrange–Euler equations of motion. I will report on applications of artificial neural networks that allow direct minimization of the regularized DBI action (interpreted as a free energy) without the need to derive and solve the equations of motion. I will consider, as examples, magnetic catalysis of chiral symmetry breaking and the meson melting phase transition in the D3/D7 holographic set-up.