Monday, April 27, 2026
from 4:45 p.m. to 6:20 p.m. (Moscow time)
room 16-10 and ZOOM translation

Denis P. Ilyutko

Oriented graph-links: invariants and a partial classification

In this talk, we consider graph-links — combinatorial objects introduced by D.P. Ilyutko and V.O. Manturov. A graph-link is defined as an equivalence class of simple labeled graphs with respect to special transformations — graph moves induced by generalized Reidemeister moves. This theory naturally generalizes classical and virtual knots and links considered up to mutation.

The aim of the talk is to introduce the notion of an oriented graph-link, i.e., an object where an orientation of "link components" is additionally taken into account. Further, we define certain invariants of oriented graph-links and, based on these invariants, carry out a classification of oriented graph-links of low complexity (with at most 4 vertices).

Part of the results were obtained by the speaker jointly with I.M. Nikonov, V.A. Maslennikova, and E.A. Protasov.

SCIENTIFIC SEMINAR
"DIFFERENTIAL GEOMETRY AND APPLICATIONS"

headed by Academician of RAS Anatoly T. Fomenko

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