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

Emin A. Abdullaev

The Gromov–Hausdorff Distance: Metric Spaces and Dynamical Systems

The talk presents the author's results on geometric properties of the Gromov–Hausdorff distance (classical, continuous, and other modifications) and their applications in the theory of dynamical systems.

In the first part, two-sided estimates are obtained for distances of l^p-products and for the pointed Gromov–Hausdorff distance for l^p-wedges of metric spaces. With their help, the existence of an isometric embedding of the Banach space l^∞ into the Gromov–Hausdorff space is proved.

In the second part, the notion of an F-space and the categorical Gromov–Hausdorff distance between such spaces are introduced. It is shown that Lyapunov stability and asymptotic stability are preserved under limit passages. It is established that in the space of compact dynamical systems the class of all stable systems is closed and nowhere dense, while the class of asymptotically stable systems is a nowhere dense F_σ-set.

SCIENTIFIC SEMINAR
"DIFFERENTIAL GEOMETRY AND APPLICATIONS"
headed by Academician of RAS Anatoly T. Fomenko
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