Pozvánka na veřejnou profesorskou přednášku Antona S. Galaeva, která se bude konat ve středu 6. března 2024 v 16.00 v posluchárně M1

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Přednášející: doc. A.S. Galaev, Dr. rer. nat.

Název: Holonomy groups in Differential Geometry

Abstract:

The object of study of differential geometry are smooth manifolds endowed with additional geometric structures. Probably the most significant geometric structures are pseudo-Riemannian metrics. The holonomy group is an important invariant of a metric since it gives information about the curvature and parallel objects on the manifold. After an introduction to the subject, I will explain results about the holonomy groups of the Levi-Civita connection on pseudo-Riemannian manifolds with the stress to the case of Lorentzian manifolds. I will discuss some applications, e.g., applications to the Einstein equation. Then I will speak about a generalization to the case of superconnections on supermanifolds. I will also discuss recent results of my PhD students about holonomy of Weyl connections and metric connections with torsion on Lorentzian manifolds. There is also another notion of holonomy in differential geometry: the holonomy pseudogroup of a foliation on a smooth manifold. At the end of the talk I will explain results about characteristic classes of these pseudogroups.

Nahrávka dostupná [ZDE.](ZDE.)