## October 2, 2023

## Yuri G. Prokhorov <br> Cylinders in algebraic manifolds

A smooth projective variety $X$ is said to be cylindrical if it contains a cylinder, i.e., a Zariski open subset $U$ isomorphic to a product $Z \times \mathbb{A}^{1}$ for some variety $Z$. The existence of a cylinder is closely related to the existence an effective action of the additive group $\mathbb{G}_{\mathrm{a}}$ on an affine cone over $X$. I am planning to survey old and new results on the existence of a cylinder on algebraic varieties focusing on the case of varieties with $\mathrm{b}_{2}(X)=1$.

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