Nonstandard Winter Day 2023

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Title: Maximal operator in function spaces with nonstandard growth

Abstract: In my talk I will say about maximal operator in Musielak-Orlicz-Sobolev spaces and in variable Hölder spaces. I will present results about boundedness and continuity of the operator in Musielak-Orlicz-Sobolev spaces and about boundedness in variable Hölder spaces. Furthermore, It will be also shown that maximal operator is not continuous in space of Lipschitz functions defined on real numbers.

The presentation will be based on joint work with Przemysław Górka and Michał Gaczkowski.