## ANALYSIS SEMINAR

## Some Properties of Transitive Operators

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ABSTRACT In the first part of our talk we prove that if an operator on a real Banach space satisfies an equation of rotation, then it does not have a hyperinvariant subspace. That completes our research of Lomonosov Invariant Subspace Theorem in real Banach spaces, since this is the converse statement to one proved in the previous three talks.

In the second part we will discuss some spectral properties of transitive operators (operators without invariant subspaces). Namely, we will show that all points of the spectrum of any transitive operator are infinitely singular for T.