

The College of Arts & Sciences
Department of Mathematical Sciences

Colloquium

Professor Fedor Nazarov

Kent State University

Thursday, October 23, 2025

Rec Center, Room 3230

4:00-5:00pm

A Lagrange-Yomdin lemma.

Suppose f is a C^m function on the unit ball $B \subset \mathbb{R}^d$ and E is a sufficiently dense net in B . We'll get a reasonably tight bound for the maximum of f on B in terms of the L^1 -norm of its m -th derivative on B and its uniform norm on E . The proof is not hard and uses only undergraduate analysis.

The question has been motivated by an ongoing joint work with Aleksei Kulikov and Mikhail Sodin on multi-dimensional Fourier uniqueness.

**Refreshments will be served 3:15-3:45 pm in the Faculty Lounge
4118 French Hall West**