

Department of Mathematical Sciences
Colloquium

JAN LANG

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Special Trigonometric Functions and Some Nonlinear Problems

Host: Osvaldo Mendez

We will introduce special trigonometric functions, which can be seen as a modification of standard trigonometric functions in the space with non-euclidian metric. Despite its long history (they were introduced in 19th century by Lundberg), their importance was not recognized until the last decades. We will describe the important role of these functions in describing eigenfunctions for some non-linear problems, the best constant for integral operators and optimal approximations in Sobolev space (optimal widths and the approximation numbers for Sobolev embeddings). We will also present recent results about asymptotics for eigenfunctions of generalized pq -Laplacian and widths of corresponding Volterra operators.

Friday, November 18, 2005 at 2 pm. in Bell Hall 143
The University of Texas at El Paso

Refreshments will be served in front of the colloquium room,
15 minutes before the start of the colloquium.

For further information, please contact Dr. Pavel Šolín, Bell Hall 220. Phone:
(915) 747-6770, email: solin@utep.edu.