

**TENSOR PRODUCTS OF  $L_p$ -SPACES AND  
APPLICATIONS TO DOMINATED POLYNOMIALS  
AND SPACES OF POLYNOMIALS**

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The aim of the talk is to give a description of symmetric tensor products of (subspaces of)  $L_p$ -spaces as linear subspaces of  $L_q$ -spaces endowed with a suitable norm. As an application, we provide a factorization theorem for dominated polynomials through a canonical prototype of a dominated polynomial with values on a linear subspace of an  $L_p$ -space, endowed with a suitable norm. We also isolate the class of dominated polynomials which factor through a closed subspace of an  $L_p$ -space in the spirit of Pietsch. The talk is based on some joint works with G. Botelho and D. Pellegrino, and with E.A. Sánchez-Pérez.

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