

Meeting: 1000, Albuquerque, New Mexico, SS 12A, Special Session on Regularity in PDEs and Harmonic Analysis

1000-35-89 **Loredana Lanzani***, Department of Mathematical Sciences, University of Arkansas, Fayetteville, AR 72701, and **Elias M. Stein**, Mathematics Department, Princeton University, Princeton, NJ 08544-1000. *Generalized Gagliardo-Nirenberg inequalities and Hodge systems in \mathbb{R}^n .*

We show how a natural generalization to forms of the classical Gagliardo-Nirenberg inequality yields a-priori L^p -estimates for L^1_{loc} solutions of the Hodge system with data in $L^1(\mathbb{R}^n)$. (Received August 18, 2004)