

1142-30-27

Dima Khavinson* (dkhavins@usf.edu), Department of Mathematics, University of South Florida, Tampa, FL 33620. *On Interplay between Algebra and PDE.*

I shall discuss O. Hesse's conjecture for homogeneous polynomials and B. I. Korenblum's conjecture on algebras of harmonic functions from the standpoint of nonlinear first-order PDE. Also, a recent theorem of T. McKinley and B. Shekhtman for polynomials is extended to a much wider class of linear PDE with entire coefficients. (Received August 13, 2018)