

Ermanno Lanconelli

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will speak on

**“Potato Kugel” in Riemannian
and Sub-Riemannian Settings**

ABSTRACT: In the paper *Potato kugel*, the authors Aharonov, Shiffer, and Zalcman gave an affirmative answer to the following question: Let P be a solid, homogeneous, compact, connected “potato” in space which gravitationally attracts each point outside of it as its mass were concentrated at a point x_0 . Must be P a ball centered at x_0 ? As a byproduct of this answer they obtain a harmonic characterization of the Euclidean balls, i.e., the inverse property with respect to the domain of the Gauss Mean Value Theorem for harmonic functions.

In this lecture we describe several extensions of the previous results, both in Riemannian and in sub-Riemannian settings.

MONDAY, 26 SEPTEMBER 2011

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3:30-5:00 PM

ROOM 617, WACHMAN BUILDING

DEPARTMENT OF MATHEMATICS