

THE DEPARTMENT OF MATHEMATICAL SCIENCES

Indiana University - Purdue University Fort Wayne

is pleased to present

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Chern-Moser-Weyl tensor theory and its applications to the Hopf Lemma for CR maps

Abstract

In this talk, we give a monotonicity formula for the Chern-Moser-Weyl curvature tensor for CR embeddings between germs of Levi non-degenerate hypersurfaces of the same signature. The criterion allows us to construct many algebraic Levi non-degenerate hypersurfaces which are non-embeddable into hyperquadrics of the same signature. We also show that any CR map from a germ of a Levi non-degenerate hypersurface $M \subseteq \mathbb{C}^n$ into a hyperquadric of the same signature in \mathbb{C}^{n+1} , if does not send an open set of \mathbb{C}^n into the hyperquadric, is always CR transversal (equivalently, a CR embedding) at nonumbilical points. This is joint work with X. Huang.

1:30 Friday, Nov. 11, 2011.

Location: KT 218

<http://ipfw.edu/departments/coas/depts/math/news/seminars.html>