## **COMPLEX ANALYSIS SEMINAR**

## **RIGIDITY OF CR MAPPINGS FOR HYPERQUADRICS**

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**ABSTRACT**: This is joint work with Jiri Lebl and Liz Vivas. We prove that the rank of a Hermitian form on the space of holomorphic polynomials can be bounded by a constant depending only on the maximum rank of the form restricted to affine manifolds. As an application we prove a result along the lines of the Baouendi-Huang and Baouendi-Ebenfelt-Huang rigidity theorems for CR mappings between hyperquadrics. If we have a real-analytic CR mapping of a hyperquadric not equivalent to a sphere to another hyperquadric Q(A,B), then either the image of the mapping is contained in a complex affine subspace or A is bounded by a constant depending only on B.

Date: Thursday, February 9, 2012 Time: 4pm-5pm Place: FH 1900

Webpage: http://math.utoledo.edu/~sonmez/complexseminar.html