DEPARTMENT OF MATHEMATICS UNIVERSITY OF MISSISSIPPI

COLLOQUIUM

Thursday, March 6 at 3:00 pm in Hume 331

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SUPPORT PLANES and a WONDERFUL THEOREM of BISHOP and PHELPS

ABSTRACT. Since the earliest days of duality in linear spaces (= Vector Spaces), support functionals for convex sets have played a critical role in applications. The Hahn-Banach theorem is an example of what can be said-any closed bounded convex subset of a normed linear space has support functionals. In the early sixties, Bishop and Phelps gave a much sharper theorem, showing that there are lots of support functionals. This talk will discuss results related to the Bishop-Phelps theorem, results that sometimes fairly amaze even people who work in the area.