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Analysis Seminar

C. Boyd

will speak on

Real Extreme points of Spaces of Complex Polynomials

Tue 7th November 2017 at 4:00PM

Location: SCN 125

Given a Banach space E and a positive integer n we let $\mathcal{P}_I(^n E)$ denote the space of all n -homogeneous integral polynomials on E . This space generalise the trace class operators and plays an important role in the duality theory of spaces of homogeneous polynomials. When E is a real Banach space and $n \geq 2$ it is known that the set of extreme points of the unit ball of $\mathcal{P}_I(^n E)$ is equal to the set $\{\pm\varphi^n : \|\varphi\| = 1\}$. When E is a complex Banach space a characterisation of the set of extreme points of the unit ball of $\mathcal{P}_I(^n E)$ is not so easy to establish. In this talk, I will look at what can be said for low values of n and small linear combinations of extreme points. This is joint work with Anthony Brown.

This talk is part of the **Analysis** series. For more, see
<https://maths.ucd.ie/seminars>