

POWER SERIES WITH REGULAR TERMS ON COMPLEX BANACH LATTICES

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We will consider regular m -homogeneous polynomials on complex Banach lattices and their properties. This will lead us to a discussion of power series of regular polynomials. In particular, we will introduce the notions of regular convergence and regular holomorphic functions. With each power series $f(z) = \sum_m P_m(z - a)$ about the point a we can associate two radii of convergence, the radius of convergence of the power series itself about a and the radius of regular convergence about a . In general, the radius of regular convergence is smaller than the radius of convergence. We will also consider orthogonally additive holomorphic functions and their radii of convergence.

This is joint work with C. Boyd and R. Ryan

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