

1014-30-1631

Daniel H. Luecking* (luecking@uark.edu), Department of Mathematical Sciences, University of Arkansas, Fayetteville, AR 72701-1201. *General interpolation in spaces of analytic functions*. Preliminary report.

Given a Banach space A of analytic functions in the unit disk \mathbb{D} , a sequence of points $Z = \{z_n\}$ in \mathbb{D} and a Banach sequence space X there may be defined a bounded operator from A to X by evaluation: $f \mapsto (f(z_n))$. Z is called an interpolating sequence (for A with respect to X) if this operator is onto.

In classical examples, a necessary condition for Z to be interpolating is that it be separated in the hyperbolic metric. In cases where the characterization is known, the necessary and sufficient condition is usually this separation plus some additional density inequality.

We examine the consequence of retaining the density inequality while discarding the separation condition, and show that one can identify the range of the evaluation operator and thereby obtain a general interpolation theorem. (Received September 28, 2005)