ICM 1998, Berlin, Aug. 18–27

Abstracts of Short Communications and Posters

Section:

8. Analysis

1991 Mathematical Subject Classification: 46
Põldvere, Märt, Tartu Universtiy, Estonia

On subspaces of Banach spaces having Phelps' uniqueness property.

A closed subspace Y of a Banach space is said to have (Phelps') property U in X if every continuous linear functional on Y has a unique norm-preserving extension to X. Intrinsic geometric characterizations of subspaces of Banach spaces having property U are given. As an application, it is shown that property U in biduals is separably determined. It is also shown that property U for the subspace of compact operators in the space of all continuous linear operators on a Banach space X implies property U for X in its bidual. Part of these results is joint work with E. Oja.
Reference: E. Oja and M. Põldvere, On subspaces of Banach spaces where every functional has a unique norm-preserving extension, *Studia Math.* **117** (1996), 289–306.