Wang, Jiaping

Duality mappings and characterizations of conjugate Banach spaces. (Chinese. English summary) Zbl 0737.46001

Summary: Some characterizations of conjugate Banach spaces are given with the concept of duality mapping and semi-inner product. A sufficient condition for a Banach space to be isometric to a conjugate space is obtained by using the concept of very smooth point. An analogous characterization of quasi-reflexive spaces is also yielded.

MSC:
46B10 Duality and reflexivity in normed linear and Banach spaces
46C50 Generalizations of inner products (semi-inner products, partial inner products, etc.)

Keywords:
characterization of conjugate Banach spaces; very smooth point; duality mapping; semi-inner product; quasi-reflexive spaces; linear isometry