INTERPOLATIVE CONSTRUCTIONS AND FACTORIZATION OF OPERATORS

MIECZYSLAW MASTYLO
ADAM MICKIEWICZ UNIVERSITY (POLAND)

Abstract. The Banach operator ideals generated by an interpolative procedure depending on concave functions are studied. These ideals are described in terms of factorization through abstract Lorentz interpolation spaces. It is shown that abstract Lorentz spaces that appeared in the factorization theorem are of the generalized Rademacher cotype determined by Orlicz sequence spaces. Relationships with some new Banach ideals are presented. A variant of Pisiers factorization theorem for (q,p)-summing operators on $C(K)$-spaces for operators from ideals determined by Orlicz sequence spaces is proved. Various applications to abstract Schatten classes are given.