AMERICAN MATHEMATICAL SOCIETY	Mathematical Reviews on the Web	Navigate MathSciNet Jump to Search or Browse Screens
Item: 4 of 7   <u>Return to headlines</u>	First   Previous   Next   Last	MSN-Support   Help
Select alternative format: BibTeX	<u>X   ASCII</u>	
MR1614017 (99d:47040) Oertel, Frank (D-BONN-S) Local properties of accessible injective operator ideals. (English summary) <u>Czechoslovak Math. J.</u> 48(123) (1998), <u>no. 1</u> , 119–133. 47D50 (46B28 46M05)		
Journal Article Doc Delivery		

**References: 0** 

**Reference Citations: 2** 

**Review Citations: 0** 

Summary: "In addition to Pisier's counterexample of a non-accessible maximal Banach ideal, we give a large class of maximal Banach ideals which are accessible. The first step is implied by the observation that a 'good behaviour' of trace duality, which is canonically induced by conjugate operator ideals, can be extended to adjoint Banach ideals if and only if these adjoint ideals satisfy an accessibility condition (Theorem 3.1). This observation leads in a natural way to a characterization of accessible injective Banach ideals, where we also recognize the appearance of the ideal of absolutely summing operators (Proposition 4.1). By the famous Grothendieck inequality, every operator from  $L_1$  to a Hilbert space is absolutely summing, and therefore our search for such ideals is directed towards Hilbert space factorization—via an operator version of Grothendieck's inequality (Lemma 4.2). As a consequence, we obtain a class of injective ideals, which are 'quasi-accessible', and with the help of tensor stability, we improve the corresponding norm inequalities to get accessibility (Theorems 4.1 and 4.2). In the last section of this paper we give applications which are implied by a nontrivial link of the above-mentioned considerations to normed products of operator ideals."

© Copyright American Mathematical Society 1999, 2006