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**Weighted inequalities for a class of Volterra convolution operators.** (English) Zbl 0703.42011  
J. Lond. Math. Soc., II. Ser. 45, No. 2, 232-242 (1992).

Necessary and sufficient conditions for the boundedness from  $L_v^p(R^+)$  to  $L_u^q(R^+)$  of Volterra convolution operators of the form  $Kf(x) \equiv \int_0^x k(x-y)f(y)dy$ , where  $k(x)$  is a nonnegative nondecreasing kernel satisfying  $k(x+y) \leq D(k(x) + k(y))$  for all  $x, y \in R^+$  are obtained. The cases  $1 < p, q < \infty$  and  $0 < q < 1 < p < \infty$  are considered. Also the criteria for the compactness of  $K$  for  $1 < p, q < \infty$  are given.

Reviewer: V.D.Stepanov

**MSC:**

**42A85** Convolution, factorization for one variable harmonic analysis

Cited in **14** Documents

**Keywords:**

weighted inequality; Lebesgue space; Volterra convolution operators

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