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*On conditions for the boundedness of the Weyl fractional integral on weighted  $L^p$  spaces*

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**Abstract:** In this paper we give a sufficient condition on the pair of weights  $(w, v)$  for the boundedness of the Weyl fractional integral  $I_\alpha^+$  from  $L^p(v)$  into  $L^p(w)$ . Under some restrictions on  $w$  and  $v$ , this condition is also necessary. Besides, it allows us to show that for any  $p : 1 \leq p < \infty$  there exist non-trivial weights  $w$  such that  $I_\alpha^+$  is bounded from  $L^p(w)$  into itself, even in the case  $\alpha > 1$ .

**Keywords:** Weyl fractional integrals, weights

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