

## Abstract

On the real line, the Dunkl operators are differential-difference operators associated with the reflection group  $\mathbb{Z}_2$  on  $\mathbb{R}$ . In the work by means of the operator of generalized shift, generated by Dunkl operator the maximal functions (Dunkl-type maximal function), fractional-maximal functions (Dunkl-type fractional maximal function) and Riesz potentials (Dunkl-type Riesz potential) are investigated. We proved pointwise and integral estimates for Riesz potentials in terms maximal and fractional maximal functions associated with the Dunkl operator on the real line.