

AN ANALOG OF TITCHMARSH'S THEOREM  
FOR THE DUNKL TRANSFORM IN THE SPACE  $L^p(\mathbb{R}^d, w_k(x)dx)$

MOHAMED EL HAMMA and RADOUAN DAHER

**Abstract.** Using a generalized spherical mean operator, we obtain an analog of Titchmarsh's theorem for the Dunkl transform for functions satisfying the  $(\beta, k)$ -Dunkl Lipschitz condition in the space  $L^p(\mathbb{R}^d, w_k(x)dx)$ , where  $1 < p \leq 2$  and  $w_k$  is a weight function, invariant under the action of an associated Weyl group.

**MSC 2010.** 42B10, 47B48, 33C52.

**Key words.** Dunkl operator, Dunkl transform, generalized spherical mean operator.

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*University of Hassan II  
Faculty of sciences Aïn Chock  
Department of Mathematics  
Casablanca, Morocco  
E-mail: m\_elhamma@yahoo.fr  
E-mail: rjdaher024@gmail.com*