

Title:

Index Theory for Wiener-Hopf Operators on Convex Cones  
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Abstract:

The classical theory of Wiener-Hopf operators on the real line has a natural multivariate extension in the framework of convex cones. Although  $C^*$ -algebras generated by multivariate Wiener-Hopf operators has been studied extensively, results on their Index Theory have only been achieved for rather special classes of cones. The most complete results are those of Upmeyer for symmetric cones. We derive a composition series and an index formula for a very general class of cones which encompasses the homogeneous and polyhedral cases. Our treatment is uniform and relies heavily on groupoid methods.