## 1015-42-226

Cristina M. Balderrama\* (cbalde@euler.ciens.ucv.ve), Av. Los Ilustres, Facultad de Ciencias, Escuela de Matematicas, Universidad Central de Venezuela, 1020 Caracas, Venezuela, and Wilfredo O. Urbina (wurbina@euler.ciens.ucv.ve), App 47.195, Los Chaguaramos, 1041-A Caracas, Venezuela. Fractional Integration and Differentiation for Jacobi expansions.

In this work we obtain an analogous of P.A. Meyer's Multipliers Theorem for Jacobi expansions and as a consecuence we define Fractional Integration and Differentiation for Jacobi expansions. Also we present Bessel Potentials and Potential Spaces associated to the Jacobi measure. Meyer's Multipliers Theorem is a very handy tool to prove  $L^p$  continuity of the Fractional Integration a Bessel Potentials and to extend the Fractional Derivative to a more general space. (Received February 06, 2006)