

1125-43-1132

E. K. Narayanan (ek.narayanan@gmail.com), Department of Mathematics, Indian Institute of Science, Bangalore, 560012, India, and **Angela Pasquale*** (angela.pasquale@univ-lorraine.fr), Institut Elie Cartan de Lorraine (IECL), UMR CNRS 7502, Bâtiment A, Ile du Saulcy, Université de Lorraine, Metz, France. *Radial parts of differential operators and a one-parameter family of hypergeometric functions of type BC.*

Heckman-Opdam's hypergeometric functions associated with root systems generalize the restrictions to a maximal Cartan subspace of Harish-Chandra's spherical functions on Riemannian symmetric spaces. Likewise, the restrictions of Harish-Chandra's spherical functions on line bundles over Hermitian symmetric spaces admit generalizations to one-parameter families of hypergeometric functions on root systems of type BC. In this talk, we revisit and complete the work on these functions independently started by Shimeno and Heckman in the 90ies and continued by Ho and Ólafsson more recently: the commutative family of differential operators to which they are associated, the corresponding family of Dunkl-Cherednik operators, asymptotics, estimates and boundedness properties. (Received September 15, 2016)