

**Meeting:** 1003, Atlanta, Georgia, SS 27A, AMS-SIAM Special Session on Analysis and Applications in Nonlinear Partial Differential Equations, I

1003-43-1567      **Cristina Balderrama** ([cbalde@euler.ciens.ucv.ve](mailto:cbalde@euler.ciens.ucv.ve)), Departamento de Matemáticas, Facultad de Ciencias, UCV., Los Chaguaramos, -A Venezuela, 1041 Caracas, DC, Venezuela, **Piotr Graczyk** ([graczyk@univ-angers.fr](mailto:graczyk@univ-angers.fr)), Département de Mathématiques, Université d'Angers, 2, boulevard Lavoisier, 49045 Angers, France, and **Wilfredo O Urbina\*** ([wilfredourbina@math.ukans.edu](mailto:wilfredourbina@math.ukans.edu)), Math Department, University of Kansas, Lawrence, KS 66045. *a formula for polynomials with symmetric matrix entries.*

We define a family of orthogonal polynomial over the space of symmetric matrices, in order to do this, we need to define a family of orthogonal polynomials in the space of symmetric functions with  $n$  variables from orthogonal polynomials of one variable and then by using a bijection between this space and the space of symmetric matrices, we define the polynomials with matrix entries. (Received October 05, 2004)