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**Markus Hunziker, Mark Sepanski\*** (mark\_sepanski@baylor.edu) and **Ronald Stanke.** *A new Schrödinger model for unitary highest weight representations.*

It follows from the classification of unitary highest weight representations and the work of Kashiwara-Vergne that every unitary reduction point of the metaplectic group  $Mp(n, \mathbb{R})$  can be embedded in  $L^2(M_{n,k})$  for some  $k < n$ , where  $M_{n,k}$  denotes the space of real  $n \times k$  matrices. Furthermore, every reduction point can be embedded in a space of sections of a holomorphic vector bundle on the Segal upper halfplane or—via boundary values—in a degenerate principal series representation. In this paper, we give a new realization of unitary highest weight representations in the kernel of a system of Schrödinger equations on the space  $M_{n,k} \times Sym_k$ , where  $Sym_k$  denotes the space of symmetric real  $k \times k$  matrices. Our realization has simple intertwining maps to the previously known realizations mentioned above. Connections with work of Enright and Wallach will also be explored. (Received July 29, 2014)