1014-22-1008 **G. F. Helminck*** (helminckgf@cs.utwente.nl), Faculty EEMCS, Department of Applied Mathematics, University of Twente P.O.Box 217, 7500 AE Enschede, Netherlands, and **A. G. Helminck** (loek@math.ncsu.edu), Department of Mathematics, North Carolina State University, Campus Box 8205, Raleigh, NC 27695-8. *Intertwining operators related to* $\mathfrak{p}$*-adic symmetric varieties.*

In this talk one considers the $\mathfrak{p}$-adic symmetric k-varieties. These homogeneous spaces have the form $X := \mathcal{H}_k/\mathcal{G}_k$, where $\mathcal{G}$ is a reductive algebraic group defined over k, its subgroup $\mathcal{H}$ is the fixed point group of an involution σ of $\mathcal{G}$ defined over k and k is a $\mathfrak{p}$-adic field. , i.e. a finite extension of $\mathbb{Q}_p$ for some p. If one considers over X complex vector bundles such that $H := \mathcal{H}_k$ acts on the fibers by a finite unitary representation ρ, then the natural action of $G := \mathcal{G}_k$ on the space of square integrable sections is unitary and possesses an integral decomposition in so-called spherical distributions of class ρ. They can be identified with certain intertwining operators and can be constructed by means of meromorphic continuation. This will be illustrated at the hand of a concrete example. (Received September 26, 2005)