

1077-43-2549

Fulton Gonzalez* (fulton.gonzalez@tufts.edu), Department of Mathematics, Tufts University, Medford, MA 02155. *Multitemporal Wave Equations on Symmetric Spaces: Mean Value Solutions*. Preliminary report.

Let $X = G/K$ be a Riemannian symmetric space with G semisimple. Let $\Gamma : \mathbb{D}(X) \rightarrow \mathbb{D}_W(\mathfrak{a})$ be the Harish-Chandra isomorphism, and let w denote the order of the Weyl group W . For $f_1, \dots, f_w \in C^\infty(X)$, consider the multitemporal system

$$D_x u(x, H) = \Gamma(D)_H u(x, H) \quad (D \in \mathbb{D}(X))$$

for $u \in C^\infty(X \times \mathfrak{a})$, with initial data

$$\partial(p_j)_H h(x, 0) = f_j(x) \quad (j = 1, \dots, w).$$

We present mean value solutions in the case when the restricted root multiplicities are even. (Received September 22, 2011)