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**Hassan Allouba and Oleksiy Ignatyev\*** (aignaty@math.kent.edu), Department of Mathematical Sciences, Kent State University, Kent, OH 44242. *On the compact support property of solutions of hyperbolic SPDE.*

We consider the space-time white noise driven SPDE on

$$\mathcal{R}_T = \mathbb{T} \times \mathbb{R}^+ = [0, T] \times [0, +\infty)$$

$$\frac{\partial^2 u(t, x)}{\partial t \partial x} = u^\alpha(t, x) \frac{\partial^2 W(t, x)}{\partial t \partial x} \quad (1)$$

$$u(0, x) = \tilde{u}(x), \quad u(t, 0) = p(t) \quad (2)$$

where  $T > 0$  is fixed but arbitrary.  $W(t, x)$  is the Brownian sheet corresponding to the driving space-time white noise with intensity Lebesgue measure-written formally as  $\partial^2 W / \partial t \partial x$ .  $\tilde{u}(x)$  and  $p(t)$  are taken to be a continuous bounded deterministic functions.

In this paper we investigate whether the solution  $u(t, x)$  of hyperbolic SPDE (1), (2) has compact support property for all  $t > 0$  providing that  $\tilde{u}(x)$  has compact support property. (Received September 25, 2006)