1157-60-252 **Cheuk-Yin Lee** (leecheu1@msu.edu), 619 Red Cedar Road, Department of Statistics and Probability, Michigan State University, East Lansing, MI 48824, and **Yimin Xiao*** (xiao@stt.msu.edu), 619 Red Cedar Road, Department of Statistics and Probability, Michigan State University, East Lansing, MI 48824. *Regularity Properties and Singularity Propagation of Stochastic Wave Equation.* Preliminary report.

Consider the linear stochastic wave equation (SWE) driven by a Gaussian noise which is white in time and colored in space. We show that the solution satisfies a certain form of strong local nondeterminism and we use this property to derive regularity properties such as the exact uniform modulus of continuity for the solution.

On the other hand, by applying general Gaussian methods, we show the existence and the propagation of singularities of the solution of SWE. The combined results show interesting fine structures of the sample function of the solution. (Received January 30, 2020)