

**Meeting:** 1005, Newark, Delaware, SS 6A, Special Session on High Dimensional Probability

1005-60-103      **Yimin Xiao\*** ([xiao@stt.msu.edu](mailto:xiao@stt.msu.edu)), Department of Statistics and Probability, A-413 Wells Hall, Michigan State University, East Lansing, MI 48824. *Sectorial Local-nondeterminism for the Brownian Sheet and Applications*. Preliminary report.

This talk is concerned with sample path properties of a class of  $N$ -parameter Gaussian random fields with values in  $\mathbf{R}^d$  including the Brownian sheet and fractional Brownian sheets. We will first show that they have the property of “sectorial local-nondeterminism (LND)” and then apply this property to prove several results about the geometry of such Gaussian random fields.

This talk is based on joint works with Davar Khoshnevisan and Dongsheng Wu. (Received February 02, 2005)