



The University of Chicago
Department of Statistics

Seminar Series

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Subsampling, Granger Causality, fMRI and MEG

TUESDAY, November 4, 2008 at 4:00 PM
110 Eckhart Hall, 5734 S. University Avenue
Please note **DIFFERENT** location!

ABSTRACT

Recent interest in using Granger causality to try to empirically determine cortical driving relationships from fMRI image sequences has raised previously unanswered questions about the possibility of doing this from data sampled on a slower time scale than the underlying dynamics. We present some new results on computation of subsampled models as well as dynamic causality measures. Using these results we discuss the impact of subsampling on dynamic measures of directional influence with application to the fMRI arena. Our conclusions are not encouraging and we move on to discuss briefly the prospects of ‘bolting’ together, fMRI and Magneto-encephalography (MEG) (with its finer temporal resolution) together to throw light on cortical dynamics.