1116-05-963   **Darren A Narayan*** (`dansma@rit.edu`), School of Mathematical Sciences, 85 Lomb Memorial Drive, Rochester Institute of Technology, Rochester, NY 14623, and **Roger Vargas**, Department of Mathematics and Statistics, Williams College, Williamstown, MA 01267. *Temporal Graph Theory and Functional Connectivity in the Human Brain.* Preliminary report.

The human brain is a dynamic network of firing neurons and continuously changing oxygen levels. To accurately and precisely model this network it is not sufficient to use a single static network, but rather a time varying aggregate of hundreds or thousands of networks. The sequence of networks obtained over the time course of a functional Magnetic Resonance Imaging (fMRI) scan provides valuable information regarding dynamic functional and structural connectivity of the human brain. This research is joint with Bradford Mahon and Frank Garcea at the Rochester Center for Brain Imaging at the University of Rochester. (Received September 15, 2015)