**Interesting readings (papers, wikipedia etc.)**

* **SVN repository:** svn+ssh://USERNAME@mcfarland.db.cs.cmu.edu/usr4/SVN-papers/christos-papers/12-joshuav-brain-graphs/TO-READ
* **[Biological Neuron Model](http://en.wikipedia.org/wiki/Biological_neuron_model)**: nice article on the various simple spiking models of neurons.
* [**Izhikevich model**](http://www.izhikevich.org/publications/spikes.pdf): an article that uses some clever tricks to reduce a number of much more complicated models (for example, the Hodkin-Huxley model, explained in detail [here](http://www.jhu.edu/motn/coursenotes/nonlinear.pdf)), with a relatively simple dynamics model. The beauty of the Izhikevich model is that it has a few parameters which can be changed that result in drastically different behavior (as explained in greater detail [here](http://www.izhikevich.org/publications/whichmod.htm)).
* [**Hierarchical topological network analysis of anatomical human brain connectivity and differences related to sex and kinship**](http://www.sciencedirect.com/science/article/pii/S1053811911012687): high-profile paper recently published. Of note, they used 70 vertex graphs, which are quite similar to the smallgraphs that you have. Joshua believes we would be the first to do analysis on the biggraphs. The authors have a pipeline of graph inference which is quite similar to the pipeline presented in a [paper](http://ieeexplore.ieee.org/xpl/articleDetails.jsp?tp=&arnumber=6173097&contentType=Journals+%26+Magazines&sortType%3Dasc_p_Sequence%26filter%3DAND%28p_IS_Number%3A6173090%29) of Joshua.
* [**Graph Classification using Signal-Subgraphs: Applications in Statistical Connectomics**](http://arxiv.org/abs/1108.1427): a different approach for analysis of small graphs from Joshua. They were able to get 84% classification accuracy using leave-one-out cross validation ([data](http://www.cs.cmu.edu/afs/cs.cmu.edu/user/dkoutra/www/private/shared_files/BLSA0317.mat): The mat file has two arrays: (a) the first has 49 graphs, each 70x70 and co-registered, and (b) the other has binary indicators corresponding to gender.).
* [**Consistent adjacency-spectral partitioning for the stochastic block model when the model parameters are unknown**](http://arxiv.org/pdf/1205.0309v2.pdf)
* [**A tutorial in connectome analysis: Topological and spatial features of brain networks**](http://arxiv.org/pdf/1105.4705.pdf)
* [**Network Centrality in the Human Functional Connectome**](http://www.medlive.cn/uploadfile/2011/1011/20111011044407894.pdf)