Homework: **Christos Faloutsos Lecture Assignment**

1. Check the Assignment Schedule for the DUE date.
2. Submit PDF containing the answers to the following questions via Moodle.

Video link: http://www.youtube.com/watch?v=GBzoNgqF-gQ&noredirect=1

Questions:

1. What evidences are provided in support of the claim that real world graphs are NOT random?
2. What distribution does the number of triangles in social networks resemble? Is there any correlation between the node degree and the number of triangles the node belongs to?
3. How to quickly estimate the number of triangles in the graph?
4. What interesting phenomenon was found using EigenSpokes, what is its possible explanation, and what graph mining task is it related to that we covered in the course?
5. What evolution of the graph diameter has been identified for time evolving graphs and what evidence is provided in support of that claim?
6. How the largest disconnected community change in time evolving graphs? Do they shrink, grow, or stabilize?
7. Does popularity of the blogs drop off exponentially? If not, then how?
8. What can be said about the duration of the phone calls? What is TLaC distribution?
9. What is OddBall algorithm good for? What information does it use?
10. How could fraud detection on eBay be captured according to the lecture?
11. How are the following questions answered: (a) Which nodes to immunize? (b) will a virus vanish or will it create an epidemic?