**Paper review for Analysis of SigMOD coauthorship graph**

Analysis of SIGMOD’s Co-Authorship Graph

<http://sigmod.acm.org/publications/sigmod-record/0309/3.coauthorship.pdf>

The first input gathered from this paper was a valuable data source : a DBLP XML data file that contains authorship info and panel members. A few points that were analysed were : number of authors per paper, number of SIGMOD papers per author, the longest path distance of a collaboration graph. They found that in no year was the co-authorship graph a single connected component. For the single largest connected component every year, they also analysed the size, the clustering coefficient, and tried to see if it exhibited the small world phenomenon. The paper also explored the existence of hubs in the graphs, and measured their centrality.

**Paper Review for Some Analyses of Erdos˝ Collaboration Graph**

Some Analyses of Erdos˝ Collaboration Graph

<http://vlado.fmf.uni-lj.si/pub/networks/doc/erdos/erdos.pdf>

This was not exactly a well published paper, but it was hard to find popular publications that relate to our project as closely. It sets out some fetaures of analysis that can be performed on large network graphs, and specifically carries them out on Erdos graphs.

It analysed features regarding the co-authorship , ie the mean,median, average degree, maximum and maximizer of of vertex degrees in Erdos graphs. It analysed the top authors based on number of co-authors. It also described the concept of *cores* and went on to analyze authors and number of co-authors in the main core, total number of co-authors, average core and and average degree of all their co-authors, and their collaborativeness. Another interesting idea they proposed was that of ‘Lords’ - vertices that have strong influence on their neighbourhoods. A recursive process, much like page ranking, finally assigns the ‘power’ to each vertex. Another analytic used was block modelling.