1060-05-216 **Rinovia Simanjuntak***, Combinatorial Mathematics Research Group, Institut Teknologi Bandung, Jalan Ganesa 10, Bandung, 40132, Indonesia, and **Miller Mirka** and **Tomas Vetrik**.
Large graphs of given degree and diameter. Preliminary report.

The degree/diameter problem is to determine the largest graphs of given maximum degree and given diameter. General upper bounds - called *Moore bounds* - for the order of such graphs are attainable only for certain special graphs.

Finding tighter upper bounds for the maximum possible number of vertices, given the other two parameters, and thus attacking the degree/diameter problem 'from above', remains a largely unexplored area. On the other hand, constructions producing large graphs of given degree and diameter represent a way of attacking the degree/diameter problem 'from below'.

In this talk, we will discuss two methods to attack the two above mainstreams of research. The talk will conclude by considering Moore-like bounds for a special type of graph - the bipartite Cayley graphs. (Received March 30, 2010)