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Joy Morris\* (joy.morris@uleth.ca), Department of Math & CS, University of Lethbridge, 4401 University Dr., Lethbridge, AB T1K 3M4, Canada. The normal quotient method for analysing the structure of highly symmetric graphs.

One method of analysing families of highly symmetric graphs, is to find a method of reducing such graphs to smaller graphs within the family, and then to analyse the irreducible graphs. Cheryl Praeger and others have made much use of normal quotients as the reduction method in this strategy.

I will demonstrate the method of normal quotient reduction and survey its use in analysing families of vertex-transitive, edge-transitive graphs. In addition to giving an overview, I will present some recent work on analysing the structure of vertex-transitive, edge-transitive strongly regular graphs.

This talk is based on joint work with Cheryl Praeger and Pablo Spiga. (Received March 08, 2010)