ON THE CONNECTIVITY OF ENHANCED POWER GRAPHS OF FINITE GROUPS

The focus of this talk is the vertex connectivity of enhanced power graphs of finite groups. We classify all abelian groups G such that the vertex connectivity of enhanced power graph of G is 1. We derive an upper bound for the vertex connectivity of the enhanced power graph of any general abelian group G. Also we completely characterize all abelian groups G, such that the proper enhanced power graph is connected. Moreover, we study some special class of non-abelian groups G such that the proper enhanced power graph is connected and we find their vertex connectivity. This is a joint work with Sudip Bera and Sajal Kumar Mukherjee.