

Title of the Talk: Commuting graphs of rings

Abstract of the Talk: The commuting graph of a ring is a simple undirected graph whose vertex set is the set of non-central elements of the ring, where two distinct vertices are adjacent if they commute. The study of commuting graphs of rings is motivated by the commuting graphs of groups. In this talk, we begin with the realization of commuting graphs of finite rings and discuss results concerning their connectedness, diameter, and various graph parameters. We shall then discuss progress made on the AGHM conjecture. Finally, we discuss certain generalizations of the commuting graph of a ring and its complement.

