National Institute of Technology Rourkela

Departmental Seminar

Seminar Title : On P_4-free power graphs

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Venue : Seminar Room (Department of Mathematics)

Date and Time : 14 Jul 2025 (11:00 am)

Abstract : Let G be a finite group. The power graph of G, denoted by P(G), is a graph whose vertex set is G, and two vertices in

P(G) are connected by an edge if and only if one of them is a power of another. We start by going over some properties of power graphs. Then we characterize finite groups with no induced subgraphs isomorphic to a path on four vertices.

Keywords: Power graph, induced subgraph, cograph, nilpotent group.