

On Graphs Defined on Algebraic Objects

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by

Manideepa Saha

Department of Mathematics
Presidency University,
Kolkata, India

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Chapter 6

Conclusion

In this chapter, we conclude the thesis with some possible direction for future research. The idea of studying graphs defined on algebraic objects turn out to be a handy tool for studying algebraic properties. In this thesis, we presented a few such ideas and a lot more is yet to be explored in future. Some of the open issues has already been mentioned at the end of the subsequent chapters. Any researcher can look into those problems to get a better insight of these graphs.

As a general note, the idea of co-maximal subgroup graph has some similarity with subgroups which commutes among themselves. Some literature is available on the study of probability of commuting subgroups in a group. This may open up new avenues in the study of co-maximal subgroup graphs in future.

In the portion on graphs defined on rings, a lot more is to be explored for prime ideal sum graph, e.g., can we say something about the underlying ring from their graphs. Even computing other graph parameters can be

an interesting topic for further research. Perfectness is an important graph parameter and has many consequences. Thus studying perfectness of prime ideal sum graphs is another area of potential research.