中国科学院数学与系统科学研究院
Academy of Mathematics and Systems Science, CAS

图论组合与网络研究中心

Center for Graph Theory, Combinatorics & Networks

学术报告

题　目：Graphical semiregular representation of finite group

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时　间：5 月 25 日（星期四） 14:30-15:30， N620

摘　要：　A digraph or a graph Γ is called a digraphical or graphical regular representation (DRR or GRR for short) of a group G respectively, if Aut(Γ) ≅ G is regular on the vertex set

V (Γ). A group G is called a DRR group or a GRR group if there is a digraph or a graph Γ such that Γ is a DRR or GRR of G. Babai and Godsil classified finite DRR groups and GRR groups in 1980 and 1981, respectively. Then a lot of variants relative to DRR or GRR, with some restrictions on (di)graphs or groups, were investigated by many researchers. We extend regular representation to semireg- ular representation. For a positive integer m, a group G is called a DmSR group or a GmSR group, if there is a *digraphical or graphical m-semiregular representation* of G, that is, a regular digraph or a graph Γ such that Aut(Γ) ≅G is semiregular on V (Γ) with m orbits. Clearly, D1SR and G1SR groups are the DRR and GRR groups. In this talk, we review some progress on DmSR groups and GmSR groups for all positive integer m, and their variants by restricting (di)graphs or groups.

个人简介：冯衍全，北京交通大学二级教授，政府特殊津贴获得者，主持获教育部自然科学二等奖。从事群、图及互连网络研究工作，在 Journal of Combinatorial Theory, Series A、Journal of Combinatorial Theory, Series B、Journal of Algebra 等国际著名期刊上发表学术论文 150 篇。主持完成国家自然科学基金 10 余项，目前主持国家自然科学基金重点项目 1 项、国际合作研究项目 1 项。担任国际代数组合权威期刊 Journal of Algebraic Combinatorics 等编委，担任中国数学会理事、中国工业与应用数学学会理事、中国运筹学会图论组合学分会常务理事等。