2019年南通大学理学院"群、组合与代数"校内论坛

　　为活跃学术气氛，增进相近学科间的学术交流，在学院领导的支持下，数学系"代数与组合"及"群与代数表示"两个科研团队联合组织了为期一天的、主题为"群、组合与代数"的校内论坛。欢迎各位老师莅临论坛，指导交流！

论坛日期：2019年10月19日（周六）
论坛地点：南通大学主校区7号楼401室
论坛学术主席：王金华 教授
组织者：罗秀花、龚律　　　　　　　**论坛网页**：*https://gaart.site123.me/meetings*

日程安排	
08:30—08:40	王金华教授 致词
08:40—09:20 主持人:王金华	报告题目： Solutions of Two Finite q-difference Equations and Their Applications
	报告人：黄建峰
	报告摘要：In this talk we consider two finite q-difference equations. As main results, we not only find a general solution for each equation but also show its solution is unique in the sense of hypergeometric term. As applications, some q-operator identities are established. Finally, we apply these operator formulas to some well known summation formulas of q-series, thereby obtaining some new q-series identities.
09:30—10:10 主持人:王金华	报告题目：A New Upper Bound on Minimum Balanced Bipartitions
	报告人：黄鹏
	报告摘要：Given a graph, we use its adjacency matrix to express the number of edge cuts of a balanced bipartition, and obtain a new upper bound on minimum balanced bipartitions. Moreover, for a planar graph, if the number of edges is less than twice of the number of vertices, then there exists a balanced bipartition such that the number of edge cuts is no more than the number of vertices.
10:20—11:00 主持人:王金华	报告题目：Modular Invariant Theory: a proof of Bannafe-Kemper's conjecture
	报告人：陈银
	报告摘要：The purpose of this talk is to give a quick introduction to modular invariant theory of finite classical groups through a proof of Bannfe-Kemper's conjecture.

11:00—11:50 主持人:王金华	报告题目：On ω-Lie Algebras
	报告人：张润萱
	报告摘要：The notion of ω-Lie algebra was introduced by Nurowski in 2007, closed to the study of isoparametric hypersufaces in Riemannian geometry and application to mathematical physics. In this talk I will present recent development on finite-dimensional complex ω-Lie algebras in terms of an algebraic point of view, including the classification of low-dimensional ω-Lie algebras and their representations.
12:00—13:30	午休
13:30—14:10 主持人:罗秀花	报告题目：图的强边染色
	报告人：马登举
	报告摘要：本报告介绍了与图的强边染色有关的概念, 并从以下四个研究方向介绍了图的强边染色的研究进展: 一是关于 Erdös 和Nešetřil提出的关于图的强边色数上界的猜想的研究; 二是关于k-退化图的强边染色的研究; 三是关于平面图的强边染色的研究; 四是关于两个图的积的强边染色的研究.
14:20—15:00 主持人:罗秀花	报告题目：Normalizers and Automizers of F-Residuals
	报告人：龚律
	报告摘要：In this talk, we give a generalized norm of F-residuals in finite group, and some interesting results are generalized, also a new size of nilpotent residual in finite group is obtianed, otherwise, we give an equivalent condition of F-group by the automizer of F-residuals in finite group.
15:10—15:50 主持人:龚律	报告题目：Unit Cayley Graphs of Rings
	报告人：居腾霞
	报告摘要：我们主要研究了环R的代数性质和它的单位凯莱图Γ(R) 的图性质之间的联系. 我们主要讨论了环R的单位凯莱图Γ(R)的连通性、可平面性; 对于有限交换环, 我们给出了单位凯莱图成为哈密尔顿图的充分必要条件; 最后考察环R、环R上多项式环R[x]以及幂级数环R[[x]]的单位凯莱图之间的关系, 讨论它们在连通性、直径、围长、染色数、团数以及可平面等方面的联系.
16:00—16:40 主持人:龚律	报告题目：Representations of Quiver over Artin Rings
	报告人：罗秀花
	报告摘要：Given a unitary Artin ring R and a finite acyclic quiver Q, let RQ be the path ring of Q over R. Then Gorenstein-projective RQ-modules are exactly the separated monic representations of Q over R which satisfy the local Gorenstein-projective condition. As an application, if R is a selfinjective ring, then RQ-module X is Gorenstein-projective if and only if X is a separated monic representation. If R is a commutative uniserial ring of length 2 (here it means that as a regular module R is uniserial with length 2), let 0\neq a\in rad R, our main result says that there is a full functor H: smon(Q, R) \to mod \bar{R}Q which induces a bijection between the indecomposable non-projetive Gorenstein-projective RQ-modules and the indecomposable \bar{R}Q-modules where \bar{R}=R/Ra.
16:50—17:00	总结(罗秀花)、论坛结束