

The 2026 Summer Workshop on Algebras

USTC, August 13-15, Hefei

August 13

14:30-17:00	Arrival/Informal Discussion on Program
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August 14

Schedule	Speakers	Title
9:30-10:30	韩喆	HRS 倾斜与导出等价
10:30-10:50	Break	
10:50-11:50	张孝金	Self-orthogonal τ -tilting τ^{-1} -tilting modules are tilting modules
12:00-15:30	Lunch Break (教工餐厅)	
15:30-16:30	汪正方	Han's Conjecture after the Kong–Liu–Shen Counterexample
16:30-16:50	Break	
16:50-17:50	沈大伟	A Serre-type criterion for n -Gorenstein rings and its application

		to Nakayama algebras
18:00-20:00	Dinner Break (教工餐厅)	
20:00-21:00	Informal Discussion	

August 15

Schedule	Speakers	Title
9:30-10:30	赵志兵	Some topics on homological conjectures and ring extensions
10:30-10:50	Break	
10:50-11:50	陈小伍	Bimodules and gluings
12:00-15:30	Lunch Break (教工餐厅)	
15:30-17:00	Informal Discussion and Departure	

Lecture Room: 第五教学楼 5107

会议组织者: 陈小伍 13865960401

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Abstracts

HRS 倾斜与导出等价

韩喆，河南大学

摘要：给定阿贝尔范畴，通过 HRS 倾斜可以得到倾斜范畴。这两个范畴之间一般不导出等价，Chen-Han-Zhou 的文章给出了二者之间实现函子为导出等价的刻画。我们将进一步讨论 HRS 倾斜相关问题的一些新进展。如果时间允许，我们将讨论 AI 如何更高效的辅助证明。

A Serre-type criterion for n -Gorenstein rings and its application to Nakayama algebras

沈大伟，河南大学

Abstract: Let R be a two-sided Noetherian ring. We introduce a Serre-type condition (G_n) , formulated in terms of the occurrence degree and the flat dimension of indecomposable injective R -modules, and prove that R is n -Gorenstein if and only if it satisfies (G_n) . We then apply this criterion to Nakayama algebras via syzygy filtration. It turns out that syzygy filtration preserves the Auslander-Gorenstein property and reflects it within the class

of 2-Gorenstein Nakayama algebras. As an application, we obtain a module-theoretic strengthening of the dimension bound conjecture of Klasz, Kleinau and Marczinzik.

Han's Conjecture after the Kong–Liu–Shen Counterexample

汪正方，南京大学

Abstract: Han's conjecture states that an algebra with vanishing Hochschild homology in all sufficiently high degrees must have finite global dimension. Kong, Liu, and Shen have claimed a counterexample to this conjecture, and we give an overview of their construction.

Self-orthogonal τ -tilting τ^{-1} -tilting modules are tilting modules

张孝金，江苏师范大学

Abstract: Let A be an Artin algebra and $T \in \{\text{mod}\} A$. If T is a self-orthogonal τ -tilting and τ^{-1} -tilting module, then T is a classical tilting module. As an application, we get a partial answer to the Tachikawa's second conjecture.

Some topics on homological conjectures and ring extensions

赵志兵， 安徽大学

Abstract: We introduce the notion of Gorenstein extension, and give some basic properties of this kind of ring extension. In addition, we pose some questions, which are related to some homological conjectures and ring extension theory.

Bimodules and gluings

陈小伍， 中国科学技术大学

Abstract: We will recall the definition of a bimodule over two additive categories. The gluings are closely related to torsion pairs and recollements. In the dg setting, the gluings behaves better.