

# $n$ -平移代数与高维表示理论

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## 1. 高维表示理论与非交换几何一些相关理论

这一部分回顾Iyama高维表示理论和Minamoto非交换代数几何与代数关系的一些相关内容，讨论Beilinson Ginzburg和SoergelKoszul对偶理论和Brenner, Butler和King几乎Koszul理论一些相关构造与理论。

参考[21, 24, 25, 3, 4]

## 2. $n$ -平移代数, 稳定 $n$ -平移代数截断与覆盖

介绍 $n$ -平移代数, 平凡扩张与预投射代数的二次对偶性, 与稳定 $n$ -平移代数相关的复杂度分类。 $\tau$ -slice,  $\tau$ -Hammock,  $\tau$ -mutation。与分次自入射代数相关的Beilinson代数和repetitive代数的构造。

参考[7, 9, 14, 15]

## 3. 箭图: 回头箭向、McKay箭图、 $\mathbb{Z}|_n Q$ 构造

介绍回头箭向, 覆盖及 $\mathbb{Z}|_n Q$ 构造及其实现。介绍其在高维表示的应用:  $\tau$ -mutation 与 $n$ -APR倾斜, 模范畴与导出范畴中的 $\tau_n$ -闭包。

参考[6, 12, 9, 13, 16]

## 4. 一些高维箭图的构造

Iyama绝对n-完全代数迭代构造(高维AR 箭图)用McKay箭图的实现和 $n$ -平移代数方法( $n$ -立方金字塔代数)的实现。

参考[8, 26, 11]

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