

On the hom-associative Weyl algebras

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a joint work with

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Abstract

In characteristic zero, the Weyl algebras are formally rigid, meaning they cannot be deformed without giving up associativity. In this talk, I will show that there is however a framework consisting of so-called hom-associative Ore extensions, in which they can be deformed. I will then show that for these deformed Weyl algebras, an analogue to the (still unsolved) Dixmier conjecture holds true. Moreover, I will delve into the prime characteristic case where we will see that the same conjecture does not hold true.

Keywords

Dixmier conjecture, formal multi-parameter hom-associative deformations, formal multi-parameter hom-Lie deformations, hom-associative Ore extensions, hom-associative Weyl algebras.

References

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