PI-Algebras and Related Topics

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Classifying group gradings on algebras

Abstract:

Let A be an algebra (not necessarily associative) and G a group. A G-grading on A is a family of subspaces $\{A_g\}_{g\in G}$ such that $A=\bigoplus_{g\in G}A_g$ and $A_gA_h\subset A_{gh}$ for all $g,h\in G$. Given A, one can try to find all possible gradings on A by various groups, up to a suitable equivalence relation. Group gradings have been extensively studied for many important algebras, including simple finite-dimensional associative, Lie and Jordan algebras.

In this talk, I will review the possible settings of the classification problem for gradings and survey some of the classification results and methods that were used to obtain them.

Date: 28-Feb-2024 Time: 10:00 am

Venue: IMECC-Unicamp (Campinas / SP), room 126

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