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Aut-stable subspaces of algebras

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In this talk, we recall some challenging problems in algebra, such as the characterization problem of polynomial rings, the automorphism groups of certain algebras, and the Dixmier property of algebras. We then explain how the concept of Aut-stable subspaces can be used as a tool to approach these problems, [1, 2, 3, 4, 5].
[1] H. Huang, Z. Nazemian, X. Tang, X.-T. Wang, Y. Wang, and J. J. Zhang, Dixmier property for Poisson algebras, preprint, 2026.
[2] Z. Nazemian and M. K. Demir, Aut-stable subspaces of Grassmann algebras, preprint, 2025.
[3] H. Huang, Z. Nazemian, Y. Wang, and J. J. Zhang, Relative cancellation, Proceedings of the American Mathematical Society, 2025.
[4] H. Huang, Z. Nazemian, Y. Wang, and J. J. Zhang, Universal homogeneity, in progress.
[5] H. Kraft, Challenging problems on affine n-space, Séminaire Bourbaki, Vol. 1994/95, Exp. No. 802, Société Mathématique de France, 1996, pp. 295-317.

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