IGUSA - TODOROV FUNCTIONS AND IGUSA-TODOROV ALGEBRAS

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Abstract

Joint work with D. Bravo (UdelaR-Uruguay) and Octavio Mendoza (UNAM - México).

Starting with the definition of *Igusa - Todorov functions* (homological generalisation of projective or injective dimension) [IT], I will follow by explaining the concept of *Igusa - Todorov algebra* [W].

After Generalising some of the results of [W2], we apply to obtain necessary and sufficient conditions for a triangular matrix R-algebra be a *n-Igusa-Todorov* algebra.

[IT] Igusa, Kiyoshi; Todorov, Gordana On the finitistic global dimension conjecture for artin algebras. *Representations of algebras and related topics*, 201-204, Fields Inst. Commun., 45, Amer. Math. Soc., Providence, RI, 2005.

[W] Wei, Jiaqun. Finitistic dimension and Igusa-Todorov algebras. *Adv. Math.* **222**, no. 6, 2215–2226, 2009.

[W2] Wei, Jiaqun Finitistic dimension conjecture and conditions on ideals. Forum Math. 23, no. 3, 549–564, 2011.