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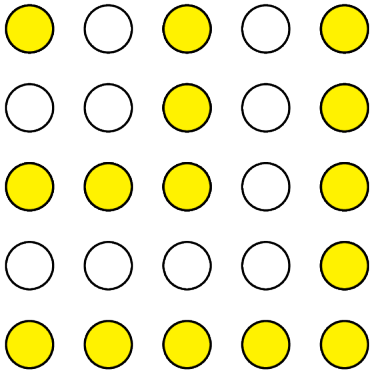
Nuestro Encuentro



$$1 + 3 + \ldots + (2n - 1) = n^2$$

Charla 84: Homological Ideals as Integer Specializations of Some Brauer Configuration Algebras

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Lugar: C119

Resumen

Brauer configuration algebras were introduced by Green and Schroll in [3] as a generalization of Brauer graph algebras, which are biserial algebras of tame representation type and whose representation theory is encoded by some combinatorial data based on graphs. In particular, we introduce the notions of the message of a Brauer configuration and labeled Brauer configurations. These concepts allow us to establish unexpected connections between different fields of mathematics and categorify some integer sequences. In this talk, homological ideals associated to some Nakayama algebras are characterized and enumerated via integer specializations of some suitable Brauer configuration algebras. Besides, it is shown how the number of such homological ideals can be connected with the categorification process of Fibonacci numbers defined by Ringel and Fahr [1, 2].

Referencias

[1] P. Fahr and C. M. Ringel, *A partition formula for Fibonacci numbers*, J. Integer Seq. **11** (2008), no. 08.14, 1-9.

[2] P. Fahr and C. M. Ringel, *Categorification of the Fibonacci numbers using representations of quivers*, J. Integer Seq. **15** (2012), no. 12.2.1, 1-12.

[3] E.L. Green and S. Schroll, *Brauer configuration algebras: A generalization of Brauer graph algebras*, Bull. Sci. Math. **141** (2017), 539-572.

Información sobre esta charla la puede consultar en la página de la Escuela de Matemáticas y Estadística: https://matematicas.netlify.app/talk/charla84/.