



Series of conferences on **Advances in Representation Theory of Algebras (ARTA)**  
Guanajuato-Toruñ-Montréal  
Guanajuato, Mexico. June 22-26, 2015.

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**TITLE:** Categorification of Some Integer Sequences

**ABSTRACT:**

The term categorification for integer sequences was coined by Fahr and Ringel in 2012. According to them a categorification of a sequence of numbers means to consider instead of these numbers a suitable object in a category [1, 2]. Such categorification allow them to find out a new integer sequence in the On-Line Encyclopedia of Integer Sequences-OEIS (A132262). In particular, a formula for the even-index Fibonacci numbers was found via a result from the covering theory introduced by Gabriel and his students.

In this talk, we describe how  $k$ -linear representations of posets can be used to define some partitions of multiples of polygonal numbers. Furthermore, we explain how the number of indecomposable representations of some posets of finite representation type can be used to obtain a partition formula for elements of the sequence A002662 in OEIS.

**References**

- [1] P. Fahr and C.M. Ringel, A partition formula for Fibonacci numbers 11 (2008), no. 1. Article 08. 1. 4, 9pp.
- [2] P. Fahr and C.M. Ringel, Categorification of the Fibonacci numbers using representations of quivers, J. Integer Seq 15 (2012), no. 2. Article 12. 2. 1, 12pp.

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