

---

IV Jornada de Álgebra no Amazonas  
2 a 6 de setembro de 2019 - Tabatinga / AM

---

Algebras of Type  $\mathbb{A}_n$  and Dyck Paths. Palestra.

Gabriel Bravo. (Universidad Nacional de Colombia) gbravor@unal.edu.co  
Pedro Fernández. (Universidad Nacional de Colombia) pffernandeze@unal.edu.co

13/08/2019

**Resumo:** In [2] Caldero, Chapoton and Schiffler introduced the category of diagonals of the  $(n + 3)$  polygon where the indecomposable objects are the diagonals of the polygon and the irreducible morphisms are direct sums of elementary movements between diagonals, by using this category they described the Auslander Reiten quiver of  $\mathbb{A}_n$  in a geometric way [3].

In this talk we will use the Dyck paths in order to describe the indecomposable modules and the irreducible morphisms in the category of representations of an algebra of type  $\mathbb{A}_n$  in a combinatorial way.

## Referências

- [1] I. Assem, D. Simson, A. Skowroński, **Elements of the Representation Theory of Associative Algebras**. Cambridge University. Press, 2006.
- [2] P. Caldero, F. Chapoton, R. Schiffler, **Quivers with relations arising from clusters ( $\mathbb{A}_n$  case)**. Trans. Am. Math. Soc., 1347-1346, 2006.
- [3] R. Schiffler, **Quiver Representations**. Springer, 2010.