

## A complete derived invariant for gentle algebras

**Pierre-Guy Plamondon**

**Université Paris-Sud XI**

*pierre-guy.plamondon@math.u-psud.fr*

Gentle algebras are a class of algebras enjoying a particularly nice presentation by a quiver with relations. In this talk, we will see how the derived category of a gentle algebra can be understood by using a geometric model: indecomposable objects become curves on a surface, morphisms become intersections of curves on the surface, and so on. We will then apply this model to classify all tilting and silting objects in the derived category of a gentle algebra. As a corollary, we obtain a complete derived invariant which extends that of Avella-Alaminos and Geiss. (This is a joint work with C.Amiot and S.Schroll.)