1167-16-308 **Claire Amiot**, **Sebastian Opper**, **Pierre-Guy Plamondon** and **Sibylle Schroll***, University of Cologne, Germany. *A geometric complete derived invariant for gentle algebras.*

Gentle algebras, a long-studied class of finite dimensional algebras given by a presentation via quiver and relations, have recently played a central role in cluster theory and homological mirror symmetry associated to compact oriented surfaces with boundary. In the latter case, Haiden-Katzarkov-Kontsevich show that the partially wrapped Fukaya category of a surface with stops is triangle equivalent to the derived category of a graded gentle algebra.

In this talk we give an entirely representation theoretic construction of a surface model of the derived category of a (zero-graded) gentle algebra. We show how this surface model enables us to construct a complete invariant which distinguishes gentle algebras, and hence the associated partially wrapped Fukaya categories, up to derived equivalence. (Received March 09, 2021)