Programme du 50^{e}
Atelier sur les variétés de carquois et la théorie des représentations
12 au 16 août

50th anniversary program
Workshop on quiver varieties and representation theory
August 12-16, 2019

Tilting theory of contracted preprojective algebras

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A preprojective algebra of non-Dynkin type has a family of tilting modules associated with the elements in the corresponding Coxeter group W (Buan-I-Reiten-Scott). This family plays an important role to understand the representation theory of the preprojective algebra. In this talk, I will discuss tilting theory of a contracted preprojective algebra, which is a subalgebra eAe of a preprojective algebra A given by an idempotent e of A. It has a family of tilting modules associated with the double cosets in W modulo certain parabolic subgroups. I will apply our results to classify certain family of Cohen-Macaulay modules over cDV singularities.

This is a joint work with Michael Wemyss.

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