Conférence « ARTA III : Avancées en théorie des représentations des algèbres » 16-20 juin 2014

> Meeting "ARTA III. Advances in Representation Theory of Algebras" June 16–20, 2014

On extensions in the Jacobian algebra of a surface without punctures

Ilke Canakçi^{*}

Given an unpunctured surface (S, M), we study extensions in the Jacobian algebra J(Q, W)and in the cluster category $\mathscr{C}_{(S,M)}$. We explicitly describe the middle terms of non-split short exact sequences in J(Q, W) and give a formula for dimension of $\operatorname{Ext}^1(M_1, M_2)$ in terms of the intersection number of the arcs associated to indecomposable string modules M_1 and M_2 .

Joint work with Sibylle Schroll.

^{*}Department of Mathematics, University of Leicester, University Road, Leicester, LE1 7RH, UNITED KINGDOM.