Oberseminar zur Algebra und Algebraischen Kombinatorik

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"Jacobian algebras from closed surfaces, derived equivalences and Brauer graph algebras"

To any ideal triangulation of a surface with marked points Labardini–Fragoso has associated a quiver with potential, thus linking the work of Fomin, Shapiro and Thurston on cluster algebras arising from marked surfaces with the theory of quivers with potentials and their mutations initiated by Derksen, Weyman and Zelevinsky.

We show that for any surface without boundary, the associated quivers with potentials are not rigid and their (completed) Jacobian algebras are finite-dimensional, symmetric and derived equivalent. This settles a question that has been open for some time and also provides an explicit construction of infinitely many families of finite-dimensional symmetric Jacobian algebras. Moreover, these Jacobian algebras are closely related to Brauer graph algebras arising naturally from triangulations of the surface.

Montag, 13.05.2013
ab 14:15 Uhr, Raum a410
Hauptgebäude der Leibniz Universität Hannover

Alle Interessierten sind herzlich eingeladen.

gez. Prof. Dr. C. Bessenrodt

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