1027-16-146   **Aslak Bakke Buan**, **Robert J. Marsh**, **Idun Reiten** and **Gordana Glisa Todorov***
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Avenue, boston, MA 02115. *Clusters and seeds in acyclic cluster algebras.*

Cluster algebras are subalgebras of the field of rational functions, generated by certain rational functions, called cluster variables. All the cluster variables are obtained from an *initial seed* $(\underline{x}_{init}, Q_{init})$, after applying mutations and obtaining new seeds $(\underline{x}, Q)$. In each such seed, $\underline{x}$ is a transcendence basis and Q is a quiver which is used to define mutations of that seed. *Cluster variables* are all the functions which appear as elements of any of the transcendence bases $\underline{x}$ obtained from the initial seed.

A conjecture of Fomin and Zelevinsky is, that after any finite sequence of mutations, the cluster seed $(\underline{x}, Q)$ is determined by its cluster $\underline{x}$.

We prove the conjecture for acyclic cluster algebras with no coefficients. (This is joint work with A. Buan, R. Marsh and I. Reiten. ArXiv:math.RT/0510359) (Received February 24, 2007)