Mutation of Conway-Coxeter friezes

A frieze is a grid of positive integers that consists of a finite number of infinite rows satisfying the so-called diamond rule. Friezes were first studied by Conway and Coxeter in 1970’s, but they gained fresh interest in the last decade in relation to cluster theory. In particular, there exists a bijection between friezes and cluster-tilted algebras of type A. An operation called mutation is the key notion in cluster theory, and we introduce mutations of friezes which are compatible with mutations of the associated cluster-tilted algebras.

This is joint work with K. Baur, E. Faber, S. Gratz, and G. Todorov.