

## Cluster algebras of infinite rank

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### Abstract:

"Cluster algebras are commutative rings with a certain combinatorial structure, introduced by Fomin and Zelevinsky at the beginning of this millennium. Many coordinate rings of algebraic varieties showing up in the context of Lie theory exhibit a natural cluster algebra structure, for example the homogeneous coordinate ring of the Grassmannian of planes in complex  $n$ -space via the Plücker embedding. In this talk we will give a short introduction to cluster algebras, followed by a discussion of some of our results on cluster algebras of infinite rank. Throughout we will closely follow the particular example of (colimits of) the coordinate ring of the Grassmannian of planes."