

# F-polynomials in quantum cluster algebras

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Abstract: F-polynomials and g-vectors were defined by Fomin and Zelevinsky to give a formula which expresses cluster variables in a cluster algebra in terms of the initial cluster data. A quantum cluster algebra is a certain noncommutative deformation of a cluster algebra. In this talk, I will define analogous quantum F-polynomials for quantum cluster algebras. I will give formulas for F-polynomials and g-vectors in cluster algebras of finite type when the initial matrix is acyclic. Finally, I will give some formulas for quantum F-polynomials in type A and D.