

# *Departmental Colloquium*

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*Thursday, August 23, 2018  
3:00 p.m., HH-3017*

*An approach toward supersymmetric cluster algebras*

**Abstract:**

We propose the notion of cluster superalgebras which is a supersymmetric version of the classical cluster algebras introduced by Fomin and Zelevinsky. We show that the symplectic-orthogonal supergroup  $SpO(2|1)$  admits a cluster superalgebra structure and as a consequence of this, we deduce that the supercommutative superalgebra generated by all the entries of a superfrieze is a cluster superalgebra. We also show that the coordinate superalgebra of the super Grassmannian  $G(2|0; 4|1)$  of chiral conformal superspace (that is,  $(2|0)$  planes inside the superspace  $\mathbb{C}^{4|1}$ ) is a quotient of a cluster superalgebra.