1129-18-128 **Stephen Hermes*** (shermes@math.harvard.edu). *Maximal Green Sequences and Semi-invariant Geometry.*

Maximal green sequences are important sequences of cluster mutations which naturally arise in combinatorics, representation theory, geometry and mathematical physics. They have applications to torsion theories, tilting, Donaldson–Thomas invariants, and supersymmetric field theory, to name but a few. In this talk I will explain how quiver semi-invariants are an indispensable tool in the study of green mutation, allowing for the proof of several outstanding conjectures about maximal green sequences. (Received March 10, 2017)