1062-16-4 Andrei Zelevinsky* (andrei@neu.edu), Department of Mathematics, Northeastern University, Boston, MA 02115. Cluster algebras via quivers with potentials.

Based on a joint work with H. Derksen and J. Weyman, we will discuss a representation-theoretic setup for cluster algebras in terms of quivers with potentials and their decorated representations. This setup allows us to prove most of the conjectures from the "Cluster algebras IV" paper (joint with S. Fomin) for cluster algebras associated with arbitrary quivers. (Received July 28, 2010)