1075-16-84 **Birge Huisgen-Zimmermann*** (birge@math.ucsb.edu) and **Kenneth R. Goodearl** (goodearl@math.ucsb.edu). *Irreducible components of module varieties.*

Let $Rep(A, \mathbf{d})$ be the classical affine variety parametrizing the modules of dimension vector $\mathbf{d}$ over a finite dimensional algebra A. We expand existing methods for exploring the irreducible components of these varieties, addressing both their geometry (e.g., rationality and normality) and the generic behavior of the modules they represent. In particular, we show that birational invariants and generic behavior of the components are determined by closed subvarieties of far smaller dimension. (Received August 23, 2011)