Helene Tyler

Computing Modules Over Finite Dimensional Algebras

The fundamental aim of elementary linear algebra is to describe what happens when one linear transformation is applied to a finite dimensional vector space over a field. The representation theory of finite dimensional algebras was born of a desire to answer a more complicated question: How can several linear transformations act simultaneously on a finite dimensional vector space? This talk provides an introduction to the theory by exploring a concrete example. The audience need only possess knowledge of the basics from an undergraduate algebra course.