The ARCS Seminar

Basic Extension Modules (All bases are created equal, but some are more equal than others)

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Abstract: We report on ongoing research about a module-theoretic construction which, when successful, yields natural extensions of infinite dimensional modules over arbitrary algebras. Whether the construction works or not depends on the basis that one chooses to carry on such a construction. Bases that work are said to be amenable. A natural example on which one may focus is when the module is the algebra itself. For instance, a great deal of the work done so far has focused on infinite dimensional algebra of polynomials on a single variable. We will see that amenability and related notions serve to classify the distinct bases according to interesting complementary properties having to do with the types of relations induced on them by the properties of their change-of-basis matrices.

Time and Place: Wednesday, Oct. 25 from 3:30–4:30PM (Mountain Time Zone) in ENG 187