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**Rebin A Muhammad\*** (rm775311@ohio.edu), 24 home street apt 104, athens, OH 45701, and  
**Sergio López-Permouth.** *On Module over infinite-dimensional Algebras.* Preliminary report.

The talk will begin by reviewing topics introduced in a 2017 JLMA paper by L.M. Al-Essa, Sergio López-Permouth and N. M. Muthana. Let  $A$  be an infinite-dimensional  $K$ -algebra, where  $K$  is a field and let  $\mathcal{B}$  be a basis for  $A$ . A basis  $\mathcal{B}$  is called an amenable basis when  $K^{\mathcal{B}}$  become an  $A$ -module in a natural way. It has been shown that different basis induce different modules. Should the induced modules be isomorphic we say the two basis are congenial. Basic setting example in previous study of amiability and congeniality was related to polynomial algebras of a single variable. We investigate other algebras such as  $k[x, y]$  and Kite Algebra. We found that if the algebra is non-commutative then there may exist a basis that is left amenable but not right amenable and vice versa. We give an example in the Kite Algebra for each of these cases. We also discuss the simplicity of basis in polynomial algebras of  $n$  variables and show that there is always a simple basis. (Received September 25, 2017)