

- ▶ MARCOS MAZARI-ARMIDA, *Stability in abstract elementary classes of modules*.  
Department of Mathematics, Baylor University, Waco, Texas, USA.  
*E-mail:* `marcos_mazari@baylor.edu`.

A classical result of first-order model theory, due to Fisher and Baur, says that if  $T$  is a complete first-order theory of  $R$ -modules then  $T$  is stable. In this talk, we will study if this result can be extended to abstract elementary classes of modules. We will first show that the result holds in many natural abstract elementary classes of modules. Then we will present an example of an AEC of modules which is not stable. Furthermore, we will use that the class of  $p$ -groups with pure embeddings is stable to solve a problem in abelian group theory due to L. Fuchs. Some results are joint work with D. Herden, J. Trlifaj and M. Walton.