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**Adriana Nenciu\*** (anenciu@otterbein.edu), Department of Mathematical Sciences, Otterbein University, 1 S Grove Street, Westerville, OH 43081. *2-generator  $p$ -groups of class 2 of central type*. Preliminary report.

Let  $G$  be a finite group and let  $f \in Z^2(G, \mathbb{C}^*)$ . The *twisted group algebra* over  $\mathbb{C}$ , denoted by  $\mathbb{C}^f G$ , is an associative algebra with basis  $\{u_g\}_{g \in G}$  and multiplication  $u_g \cdot u_h = f(g, h)u_{gh}$ .

It is well-known that if  $G$  is non-trivial then  $\mathbb{C}G$  is not simple. However, it is possible to find  $f \in Z^2(G, \mathbb{C}^*)$  such that  $\mathbb{C}^f G$  is simple. In that case the group  $G$  is said to be of *central type*. The classification of abelian groups of central type is known. It is much harder to understand the non-abelian groups of central type. In this talk I will give some preliminary results regarding which 2-generator  $p$ -groups of class 2 are of central type. (Received January 20, 2018)