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**David C Meyer\*** ([meyercdc@missouri.edu](mailto:meyercdc@missouri.edu)), University of Missouri, 217 Mathematical Sciences Building, 810 E. Rollins Street, Columbia, MO 65201. *Universal deformation rings and finite subgroups of  $Gl_2(\mathbb{C})$ .*

Universal deformation rings convey information about the characteristic 0 representations associated to characteristic  $p$  representations of an algebra. Let  $\Gamma$  be a finite group, and let  $V$  be an absolutely irreducible  $\mathbb{F}_p\Gamma$ -module. We consider the function which assigns to  $V$  its universal deformation ring  $R(\Gamma, V)$ . When this function is nonconstant, we can use its graph to determine information about the internal structure of the group  $\Gamma$ . Specifically, we connect the fusion of certain subgroups  $N$  of  $\Gamma$ , to the kernels of those representations whose corresponding modules are a level set of the function  $V \rightarrow R(\Gamma, V)$ . We consider groups  $\Gamma$  which are extensions of finite irreducible subgroups of  $Gl_2(\mathbb{C})$  by elementary abelian  $p$ -groups of rank 2. (Received August 29, 2016)