1124-14-6 **Tolga Karayayla*** (tkarayay@metu.edu.tr). *Finite groups which act freely on smooth Schoen threefolds.*

A Schoen 3-fold is a fiber product $X = B_1 \times_{\mathbb{P}^1} B_2$ over $\mathbb{P}^1$ of two rational elliptic surfaces B_1 and B_2 with section. If X is smooth, it is a simply connected Calabi-Yau 3-fold. If a finite group G acts freely on X, then the quotient space X/G is a non-simply connected Calabi-Yau 3-fold. In order to list all non-simply connected Calabi-Yau 3-folds which are obtained as quotients of smooth Schoen 3-folds, the finite groups which act freely on Schoen 3-folds must be classified. We consider group actions on X where any element of the group is a product $\tau_1 \times \tau_2$ of automorphisms of the elliptic surfaces B_1 and B_2 so that the automorphisms $\phi(\tau_1)$ and $\phi(\tau_2)$ on the base curve $\mathbb{P}^1$ induced by τ_1 and τ_2 are the same. Each group G acting on X induces a group action on the base curve $\mathbb{P}^1$.The group actions on X which induce cyclic group actions on $\mathbb{P}^1$ were classified by Bouchard and Donagi. In this talk, I will present my recent result that any finite group which acts freely on a smooth Schoen 3-fold induces a cyclic group action on the base curve $\mathbb{P}^1$. This result completes the classification of finite groups which act freely on smooth Schoen 3folds. (Received March 17, 2016)