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John Maginnis (maginnis@math.ksu.edu), Department of Mathematics, 137 Cardwell Hall, Manhattan, KS 66506, and **Silvia Onofrei*** (onofrei@math.ohio-state.edu), Department of Mathematics, 100 Mathematics Tower, 231 West 18th Avenue, Columbus, OH 43210. *On the vertices of indecomposable summands of certain Lefschetz modules.*

Let G be a finite group of parabolic characteristic p and assume that the centralizer of a noncentral p -element has a component which also has parabolic characteristic p . Consider the complex of p -centric and p -radical subgroups in G . I will discuss the nature of the fixed point sets under the action of p -subgroups of G . Next, I will explain how the properties of the reduced Lefschetz module associated to the complex of p -centric and p -radical subgroups in a component of the centralizer of a p -element of G , determine the behavior of the corresponding Lefschetz module in G . Based on this information the vertices of the indecomposable summands of the reduced Lefschetz module in G are determined. Applications to the sporadic simple groups will be presented in the end. (Received September 08, 2010)