

Cameron-Liebler line classes are sets of lines in $\text{PG}(3, q)$ having special intersection properties; for instance, if L is a Cameron-Liebler line class, there is an integer x called the parameter of L , such that every spread in $\text{PG}(3, q)$ shares x lines with L . Along with a few trivial examples, there is one infinite family known for q odd, due to Bruen and Drudge, and a sporadic example in $\text{PG}(3, 4)$ due to Penttila.

In this talk, we will look at some new examples constructed from orbits of a cyclic group acting on the space. Specifically, we look at a cyclic group of order $q^2 + q + 1$ acting semi-regularly on the lines of $\text{PG}(3, q)$. By combining the line orbits in an appropriate manner, we obtain several new examples.