

1135-20-170

Keith Jones and **Gregory A. Kelsey*** (gkelsey@bellarmine.edu). *The Star Geometry of Diestel-Leader Groups.*

Given a bordified space, Karlsson defines an incidence geometry of stars at infinity. These stars and their incidence are closely related to well-understood objects when the space is hyperbolic, $CAT(0)$, or a bounded convex domain with the Hilbert metric. It is not clear what star geometries are possible when the space is a finitely generated group that is not negatively-curved. We compute the star geometry of the Diestel-Leader graph that is the Cayley graph of the lamplighter group bordified by its horofunction boundary. We also discuss the generalization of this result to other Diestel-Leader groups. (Received August 07, 2017)