Jones, Keith; Kelsey, Gregory A.
On the asymmetry of stars at infinity. (English) \[Zbl 07487230\]
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Summary: 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. A question stemming from Karlsson’s original paper was whether or not the relation of one boundary point being included in a star of another boundary point is symmetric. This paper provides an example demonstrating that this relation in the star boundary of the three-tree Diestel-Leader graph $DL_3(q)$ is not symmetric. In doing so, some interesting bounds on distance in Diestel-Leader graphs are utilized.

MSC:
20F65 Geometric group theory
20F69 Asymptotic properties of groups
20E22 Extensions, wreath products, and other compositions of groups
05C25 Graphs and abstract algebra (groups, rings, fields, etc.)

Keywords:
stars at infinity; horofunction; horoboundary; diestel-leader graphs; lamplighter groups

Full Text: DOI

References:

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