

1139-14-643

Georgy Scholten and **Cynthia Vinzant*** (clvinzan@ncsu.edu). *Semi-inverted linear spaces.*

The image of a linear space under inversion of some coordinates is an affine rational variety whose structure is governed by an underlying hyperplane arrangement. The image of a real linear space is a hyperbolic variety, meaning that there is a family of linear spaces all of whose intersections with it are real. Over the past ten years, the case of inverting all coordinates has appeared in connections with hyperplane arrangements, statistics, and linear programming. I will review some of these connections and talk about the nice real and combinatorial structure of this generalization. (Received February 20, 2018)