

1096-05-2262

Jackie Kaminski* (kaminski@juniata.edu), Jackie Kaminski, Juniata College, 1700 Moore St., Huntingdon, PA 16652. *Classification of Factored Gain-Graphic Hyperplane Arrangements.*

The property of inductive factorizability of a hyperplane arrangement, which is one way an arrangement can be shown to be free. Inductive factorizability is a matroid property, as such it generalizes to the frame matroid of a gain graph over an arbitrary group. A weaker property is factorizability. I have classified all factorizable gain graphic arrangements, which is the first step and biggest step towards a classification of inductively factorizable gain-graphic arrangements.

I will present the connection between gain graphs and the corresponding hyperplane arrangements, and the classification (in graph theoretic terms) of factored gain-graphic arrangements. (Received September 17, 2013)