

4-lateral matroids induced by n_3 -configurations

Michael Raney

Georgetown University

`mwr23@georgetown.edu`

A *4-lateral matroid* induced by an n_3 -configuration is a rank-4 matroid whose ground set consists of the blocks (lines) of the configuration, and for which any 4 elements of the ground set are independent if and only if they do not determine a 4-lateral within the configuration. We characterize the n_3 -configurations which induce 4-lateral matroids, and provide examples of small n_3 -configurations which do so.