

1156-05-167

Deborah Oliveros* (debolivero@matem.unam.mx), Instituto de Matematicas, Boulevard Juriquilla 3001., Queretaro, Queretaro, Mexico. *The geometry and the combinatorics of piercing line segments hypergraphs.*

An *r*-segment hypergraph H is a hypergraph whose edges consist of r consecutive integer points on line segments in \mathbb{R}^2 . In this talk, we will discuss bounds of the chromatic number $\chi(H)$ and covering number $\tau(H)$ of hypergraphs in this family, uncovering several interesting geometric properties in the process. (joint work with Christopher O'Neill and Shira Zerbib) (Received January 22, 2020)