

In-Class Exercise 1: Lines Intersecting Segment

What is the shape of the set of duals of all non-vertical lines that intersect a given line segment s ?

General Position in Trapezoidal Decomposition

Show that the general position assumption in trapezoidal decomposition can be relaxed to allow in particular vertical segments and segments that intersect in their endpoints. We still assume that the segments are non-crossing. What if we in addition allow a query point to lie on a segment or to share an x -coordinate with some endpoint?