Parity Graphs for Convex Drawings

Heiko Harborth, TU Braunschweig, Germany

A convex drawing of a graph G of order n is a realization of G in the plane where the n vertices of G are mapped into the vertices of a convex n-gon and where the edges of G are mapped into the corresponding (rectilinear or curved) diagonals inside of the n-gon such that two diagonals (edges) have at most one point in common either a vertex or a crossing. - For a convex parity graph the numbers of crossings in all of its convex drawings are in one residue class modulo 2 on ly. - For convex parity graphs a criterion, methods of constructions, and some classes of these graphs are presented. - (This is common work with Alewyn P. Burger, South Africa.)