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Marcus Schaefer* (mschaefer@cti.depaul.edu), 243 South Wabash, Ste 401, Chicago, IL 60604, and **Michael Pelsmajer** and **Daniel Stefankovic**. *Graphs with Rotation*.

In a graph drawn on a surface, the rotation system specifies the cyclic order of the edges at each vertex. Rotation systems have traditionally been used to specify embeddings of graphs in a surface. We survey recent work in which we have used rotation to derive results about graph drawings with crossings. This includes work on the odd crossing number, the complexity of the crossing number of cubic graphs, variants of the Hanani-Tutte theorem and generalized thrackles. (Received July 30, 2007)