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Jacob E. Goodman* (jegcc@cunyvm.cuny.edu), Department of Mathematics, City College, CUNY, New York, NY 10031. *Permutation Sequences and Pseudoline Arrangements, Old and New, Part II.*

We describe two techniques for extending results on line transversals to planar families of convex sets to the case of pseudoline transversals to planar families of connected sets. One involves the use of double-permutation sequences, the other the embedding of a pseudoline arrangement in a topological projective plane. We show how the first method can be used to extend the Edelsbrunner-Sharir theorem on the maximum number of geometric permutations of a family of convex sets, and how the second can be used to extend the Hadwiger theorem on the existence of a line transversal to a family of convex sets. The first result is joint with Richard Pollack, the second with Saugata Basu, Andreas Holmsen, and Richard Pollack. (Received July 30, 2005)