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A. Heppes* (aheppes@renyi.hu), Vercse u 24/A, Budapest, Hungary. *The role of distance in Helly type transversal problems.* Preliminary report.

A family of at least k discs is a $T(k)$ -family if every subset of k members has a line transversal, i. e. a line meeting all members of the subset. Under certain further conditions, e. g. if the discs are congruent and disjoint and $k \geq 5$, a $T(k)$ -family has a common line transversal. The smallest such k is called the transversal Helly number of the family. The first part of the talk is a short survey of known related results. In the second part the initial results of a new direction of research are presented in which disjointness is relaxed and replaced by a lower bound for the smallest mutual distance t of the centers of the congruent discs. It turns out that the Helly number exists for any $t > 0$ and it is a decreasing function of t . (Received July 19, 2005)