Geometric Methods in Location Analysis

Horst W. Hamacher
Fachbereich Mathematik
Universität Kaiserslautern
email: hamacher@mathematik.uni-kl.de

Planar location theory deals with problems in which one or several objects have to be placed in the plane such that some given objective function relating the new location(s) to existing locations is minimized. In this talk a selection of geometric methods is presented which can be used to solce such location problems.

Special emphasis will be given to the analysis of location problems with restrictions (where regions of the plane are forbidden for the placement of locations) or barriers (where additionally trespassing of such regions is not allowed), to distance functions which are based on the Minkowski (or gauge) distance and to the case where more than one critera has to be considered.