

# **GIS-basierte Kompromissoptimierung und Fuzzy Modellierung als Methoden zur multikriteriellen Eignungsbewertung von Flächennutzungsoptionen**

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Inherent conflicts between land utilisation and protection require comprehensible planning. Therefore evaluation of suitability of land utilisation types, as a preliminary stage in the process of decision making, has to meet the demands.

Purpose of the paper is to investigate two methods of suitability evaluation: Compromise Programming (CP) and Fuzzy Modelling. The first chapter gives a review of the methodological background of CP and Fuzzy Set Theory. Chapter 2 describes the implementation of CP as ARC/INFO environment using AML. The creation of hierarchical fuzzy models using the open source software “Spatial Analysis and Modelling Tool” is illustrated in Chapter 3. Chapter 4 presents results of the application of both methods on a research area nearby Dresden.