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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 884
Disciplina	005.74
Soggetti	Database management Geographical information systems Computers Data structures (Computer science) Computational complexity Pattern recognition Database Management Geographical Information Systems/Cartography Theory of Computation Data Structures Complexity Pattern Recognition
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Environments for land application development: issues and design guidelines -- Modelling a hierarchy of space applied to large road networks -- Approximations for a multi-step processing of spatial joins -- First experiences with GEOSTORE, an information system for geologically defined geometries -- The DOMUS project — Building an OODB GIS for environmental control -- Virtual geographic information system (VGIS) -- Multiple representation modelling and querying --

Surface modelling with guaranteed consistency — An object-based approach -- Hierarchical hypersurface modeling -- Spatial reallocation of global gridded climate datasets -- Development of specialized geographical information systems for the analysis of large scale radioecological accidents -- On quality paths on polyhedral terrains -- Algorithms for automated extraction of man-made objects from raster image data in a GIS -- A prototype spatial data environment for urban design -- Knowledge-based systems coupled with geographic information systems -- Sustained spatial data management in real-world projects — A research focus -- A storage manager for the development of spatial data structures -- CARTECH: a prototype of geographical information system -- COSIMA A network based architecture for GIS -- The XYZ GeoServer for geometric computation -- Patchwork — A query-driven locally adaptive data space partitioning -- Recognition of urban roads on large-scale maps: the prototypical cases -- Intelligent decision support based on GIS: The EcoRisk Project -- Optimizing spatial data structures for static data -- A hybrid pointerless representation of quadtrees for efficient processing of window queries -- Optimization issues in R-tree construction -- VisTool: A visualization tool for spatial access structures -- Relation-based information processing with symbolic spatial indexes.

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### Sommario/riassunto

This volume constitutes the proceedings of the International Workshop on Advanced Research in Geographic Information Systems, IGIS '94, held in Ascona, Switzerland in February/March 1994. The 28 carefully refereed and revised papers address all current aspects of GIS research and their advanced applications to spatial and environmental data engineering. Among the topics covered are GIS theory, spatial databases, spatial data structures, environmental modelling and control, data modelling, object-orientation, pattern recognition, and optimization. In addition, software and non-commercial as well as commercial GIS are analysed.

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