Record Nr. UNINA9910876952703321 Autore Lorca Xavier Titolo Tree-based graph partitioning constraint / / Xavier Lorca Pubbl/distr/stampa London, : ISTE Hoboken, N.J.,: Wiley, 2011 **ISBN** 1-118-60430-X 1-299-14154-4 1-118-60447-4 1-118-60360-5 Descrizione fisica 1 online resource (252 p.) **ISTE** Collana Classificazione MAT029000 Disciplina 005.1/16 Constraint programming (Computer science) Soggetti Graph theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto pt. 1. Constraint programming and foundations of graph theory -- pt. 2. Characterization of tree-based graph partitioning constraints -- pt. 3. Implementation: task planning -- pt. 4. Conclusion and future work. Sommario/riassunto Combinatorial problems based on graph partitioning enable us to mathematically represent and model many practical applications. Mission planning and the routing problems occurring in logistics perfectly illustrate two such examples. Nevertheless, these problems are not based on the same partitioning pattern: generally, patterns like cycles, paths, or trees are distinguished. Moreover, the practical applications are often not limited to theoretical problems like the Hamiltonian path problem, or K-node disjoint path problems. Indeed,

they usually combine the graph partitioning problem with sever