Record Nr. UNINA9910449786603321 Autore Cruz Jorge **Titolo** Constraint reasoning for differential models [[electronic resource] /] / Jorge Cruz Amsterdam; ; Washington, D.C., : IOS Press, c2005 Pubbl/distr/stampa **ISBN** 1-280-24343-0 9786610243433 1-4237-9924-0 1-60750-121-X 600-00-0376-5 1-60129-102-7 Descrizione fisica 1 online resource (244 p.) Collana Frontiers in artificial intelligence and applications;; v. 126 006.3 Disciplina Soggetti Constraints (Artificial intelligence) Differential equations Interval analysis (Mathematics) Biophysics - Mathematical models Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto Title page: Table of Contents: Introduction: Interval Constraints: Constraint Satisfaction Problems; Interval Analysis; Constraint Propagation; Partial Consistencies; Global Hull-Consistency; Local Search: Experimental Results: Interval Constraints for Differential Equations; Ordinary Differential Equations; Constraint Satisfaction Differential Problems; Solving a CSDP; Biomedical Decision Support with ODEs: Conclusions and Future Work; References; Appendix A: Interval Analysis Theorems: Appendix B: Constraint Propagation Theorems Focuses on the integration of ordinary differential equations within the Sommario/riassunto interval constraints framework, which for this purpose is extended with the formalism of Constraint Satisfaction Differential Problems. Such a framework allows the specification of ordinary differential equations by means of constraints.