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Descrizione fisica	1 online resource (244 p.)
Collana	Frontiers in artificial intelligence and applications ; ; v. 126
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Soggetti	Constraints (Artificial intelligence) Differential equations Interval analysis (Mathematics) Biophysics - Mathematical models
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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
Sommario/riassunto	Focuses on the integration of ordinary differential equations within the 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.