1. Record Nr. UNINA9910299701203321 Autore Kulkarni Anand Jayant Titolo Probability Collectives: A Distributed Multi-agent System Approach for Optimization / / by Anand Jayant Kulkarni, Kang Tai, Ajith Abraham Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2015 **ISBN** 3-319-16000-1 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (162 p.) Collana Intelligent Systems Reference Library, , 1868-4394;; 86 006.3 Disciplina Soggetti Computational intelligence Artificial intelligence Statistical physics **Dynamics** Computational Intelligence Artificial Intelligence Complex Systems Statistical Physics and Dynamical Systems 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 at the end of each chapters. Nota di contenuto Introduction to Optimization -- Probability Collectives: A Distributed Optimization Approach -- Constrained Probability Collectives: A Heuristic Approach -- Constrained Probability Collectives with a Penalty Function Approach -- Constrained Probability Collectives With Feasibility-Based Rule I -- Probability Collectives for Discrete and Mixed Variable Problems -- Probability Collectives with Feasibility-Based Rule II. Sommario/riassunto This book provides an emerging computational intelligence tool in the framework of collective intelligence for modeling and controlling distributed multi-agent systems referred to as Probability Collectives. In the modified Probability Collectives methodology a number of constraint handling techniques are incorporated, which also reduces the computational complexity and improved the convergence and efficiency. Numerous examples and real world problems are used for

illustration, which may also allow the reader to gain further insight into