1. Record Nr. UNINA9910143636503321 Autore Thielscher Michael Titolo Challenges for Action Theories / / by Michael Thielscher Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2000 3-540-45596-5 **ISBN** Edizione [1st ed. 2000.] Descrizione fisica 1 online resource (XIV, 146 p.) Collana Lecture Notes in Artificial Intelligence;; 1775 Disciplina 004.2/1 Soggetti Artificial intelligence Mathematical logic Artificial Intelligence Mathematical Logic and Formal Languages Mathematical Logic and Foundations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Foundations of Action Theories -- The Ramification Problem -- The Qualification Problem -- Qualified Ramifications. Sommario/riassunto A logic-based approach to the design of computing systems would, undoubtedly, offer many advantages over the imperative paradigm most commonly applied so far for programming and hardware design and, consequently, logic, again and again, has been heralded as the basis for the next generation of computer systems. While logic and formal methods are indeed gaining ground in many areas of computer science and artificial intelligence the expected revolution has not yet happened. In this book the author offers a convincing solution to the ramification problem and qualification problem associated with the frame problem and thus contributes to a satisfactory solution of the core problem and related challenges. Thielscher bases his approach on

description of actions and change.

the fluent calculus, a first-order Prolog-like formalism allowing for the