

[Prioritized logic programming and its application to commonsense reasoning](#)[\[PDF\] from psu.edu](#)C Sakama... - [Artificial Intelligence](#), 2000 - Elsevier

Representing and reasoning with priorities are important in commonsense reasoning. This paper introduces a framework of prioritized logic programming (PLP), which has a mechanism of explicit representation of priority information in a program. When a program contains incomplete ...

[Cited by 97](#) - [Related articles](#) - [All 12 versions](#)[Negation as failure in the head](#)..., C Sakama - [The Journal of Logic Programming](#), 1998 - Elsevier

The class of logic programs with negation as failure in the head is a subset of the logic of MBNF introduced by Lifschitz and is an extension of the class of extended disjunctive programs. An interesting feature of such programs is that the minimality of answer sets does not hold. ...

[Cited by 94](#) - [Related articles](#) - [BL Direct](#) - [All 6 versions](#)[\[PDF\] Possible model semantics for disjunctive databases](#)[\[PDF\] from psu.edu](#)C Sakama - ... [First International Conference on Deductive and ...](#), 1990 - Citeseer

This paper presents a novel approach to the semantics of deductive databases. The possible model semantics is introduced as an alternative approach to the classical minimal model semantics. The possible model semantics can distinguish both inclusive and exclusive ...

[Cited by 74](#) - [Related articles](#) - [View as HTML](#) - [All 4 versions](#)[An alternative approach to the semantics of disjunctive logic programs and deductive databases](#)C Sakama... - [Journal of automated reasoning](#), 1994 - Springer

Abstract. In this paper, we study a new semantics of logic programming and deductive databases. The possible model semantics is introduced as a declarative semantics of disjunctive logic programs. The possible model semantics is an alternative theoretical framework to ...

[Cited by 70](#) - [Related articles](#) - [BL Direct](#) - [All 3 versions](#)[Representing priorities in logic programs](#)C Sakama... - ... [proceedings of the 1996 Joint International ...](#), 1996 - books.google.com

Representing Priorities in Logic Programs Chiaki Sakama Department of Computer and Communication Sciences Wakayama University Sakaedani, Wakayama 640, Japan sakamafsys.

wakayama-u. ac. jp http://www. wakayama-u. ac. jp/~ sakama Katsumi Inoue Department ...

[Cited by 69](#) - [Related articles](#) - [All 4 versions](#)[\[PDF\] Abductive Framework for Nonmonotonic Theory Change](#)[\[PDF\] from psu.edu](#)..., C Sakama - [International Joint Conference on Artificial ...](#), 1995 - Citeseer

A lot of theories for belief change have been proposed in AI and related fields. At abstract and philosophical levels, the belief dynamics have been studied as rationality postulates to be satisfied by belief sets (eg, [Alchourron et al., 1985; Katsuno and Mendelzon, 1991b]). In the ...

[Cited by 67](#) - [Related articles](#) - [View as HTML](#) - [BL Direct](#) - [All 10 versions](#)[Updating extended logic programs through abduction](#)[\[PDF\] from psu.edu](#)C Sakama... - [Logic Programming and Nonmonotonic Reasoning](#), 1999 - Springer

Abstract. This paper introduces techniques for updating knowledge bases represented in extended logic programs. Three different types of updates, view updates, theory updates, and inconsistency removal, are considered. We formulate these updates through abduction, and provide ...

[Cited by 63](#) - [Related articles](#) - [BL Direct](#) - [All 10 versions](#)[A fixpoint characterization of abductive logic programs* 1](#)..., C Sakama - [The Journal of logic programming](#), 1996 - Elsevier

A new fixpoint semantics for abductive logic programs is provided, in which the belief models of an abductive program are characterized as the fixpoint of a disjunctive program obtained by a suitable program transformation. In the transformation, both negative hypotheses ...

[Cited by 49](#) - [Related articles](#) - [BL Direct](#) - [All 9 versions](#)[Equivalence of logic programs under updates](#)..., C Sakama - [Logics in Artificial Intelligence](#), 2004 - Springer

Abstract. This paper defines a general framework for testing equivalence of logic programs with respect to two parameters. Given two sets of rules Q and R, two logic programs P1 and P2 are said to be update equivalent with respect to (Q, R) if $(P1 \setminus Q) \cup R$ and $(P2 \setminus Q) \cup R$ have ...

[Cited by 43](#) - [Related articles](#) - [BL Direct](#) - [All 4 versions](#)[Paraconsistent Stable Semantics for extended disjunctive programs](#)C Sakama... - [Journal of Logic and Computation](#), 1995 - Oxford Univ Press

This paper presents declarative semantics of possibly inconsistent disjunctive logic programs. We introduce the paraconsistent minimal and stable model semantics for extended disjunctive programs, which can distinguish inconsistent information from other ...

[Cited by 41](#) - [Related articles](#) - [All 6 versions](#) [Create email alert](#)

[Partial deduction of disjunctive logic programs: A declarative approach](#)[\[PDF\] from psu.edu](#)C Sakama... - [Logic Program Synthesis and Transformation—Meta-](#) ..., 1994 - Springer

Partial deduction or partial evaluation is known as one of the optimization techniques in logic programming. Given a logic program, partial deduction derives a more specific program through performing deduction on a part of the program, while preserving the meaning of the ...

[Cited by 39](#) - [Related articles](#) - [BL Direct](#) - [All 8 versions](#)[Extended well-founded semantics for paraconsistent logic programs](#)C Sakama - [In Fifth Generation Computer Systems](#), 1992 - Citeseer

This paper presents a declarative semantics of logic programs which possibly contain inconsistent information. We introduce a multi-valued interpretation of logic programs and present the extended well-founded semantics for paraconsistent logic programs. In this setting, a meaningful ...

[Cited by 34](#) - [Related articles](#) - [Cached](#) - [All 2 versions](#)[Speculative computation by abduction under incomplete communication environments](#)..., K Iwanuma, C Sakama - [MultiAgent Systems](#), ..., 2000 - [ieeexplore.ieee.org](#)

... Koji Iwanuma Yamanashi University 4-3-11 Takeda, Kofu 400-8511 Japan iwanuma@esi.yamanashi.ac.jp Chiaki Sakama Wakayama University Sakaedani, Wakayama 640-8510 Japan sakama@sys.wakayama-u.ac.jp Abstract ...

[Cited by 36](#) - [Related articles](#) - [All 5 versions](#)[On the equivalence between disjunctive and abductive logic programs](#)C Sakama... - [Logic Programming, Proceedings of the Eleventh](#) ..., 1994 - Citeseer

This paper presents the equivalence relationship between disjunctive and abductive logic programs. We show that the generalized stable model semantics of abductive logic programs can be translated into the possible model semantics of disjunctive programs, and vice ...

[Cited by 31](#) - [Related articles](#) - [Cached](#) - [All 5 versions](#)[Transforming abductive logic programs to disjunctive programs](#)[\[PDF\] from psu.edu](#)..., C Sakama - ... of the Tenth International Conference on ..., 1993 - [books.google.com](#)

Transforming Abductive Logic Programs to Disjunctive Programs Katsumi Inoue* ICOT 1-4-28 Mita, Minato-ku, Tokyo 108, Japan inoue@icot.or.jp Chiaki Sakama ASTEM Research Institute of Kyoto 17 Chudoji Minami-machi, Shimogyo, Kyoto 600, Japan sakama@astem.or.jp ...

[Cited by 32](#) - [Related articles](#) - [All 8 versions](#)[An abductive framework for computing knowledge base updates](#)[\[PDF\] from arxiv.org](#)C Sakama... - [Theory and Practice of Logic](#) ..., 2003 - Cambridge Univ Press

This paper introduces an abductive framework for updating knowledge bases represented by extended disjunctive programs. We first provide a simple transformation from abductive programs to update programs which are logic programs specifying changes on abductive ...

[Cited by 27](#) - [Related articles](#) - [All 10 versions](#)[Relating disjunctive logic programs to default theories](#)C Sakama... - [Logic Programming and Non-monotonic](#) ..., 1993 - [books.google.com](#)

Relating Disjunctive Logic Programs to Default Theories Chiaki Sakama ASTEM Research Institute of Kyoto 17 Chudoji Minami-machi Shimogyo, Kyoto 600, Japan sakama@astem.or.jp Katsumi Inoue* ICOT Mita-Kokusai Bldg., 21F 1-4-28 Mita, Minato-ku, Tokyo 108, Japan ...

[Cited by 24](#) - [Related articles](#) - [All 4 versions](#)[Negation in disjunctive logic programs](#)

C Sakama... - 1993 - Citeseer

In this paper, we study inferring negation from disjunctive logic programs. First, we consider extensions of the GCWA and the WGCWA for general disjunctive programs based upon the stable model semantics. We define new rules, the GCWA⁻ and the WGCWA⁻, which are natural ...

[Cited by 21](#) - [Related articles](#) - [Cached](#) - [All 5 versions](#)[Embedding circumscriptive theories in general disjunctive programs](#)[\[PDF\] from psu.edu](#)C Sakama... - [Logic Programming and Nonmonotonic Reasoning](#), 1995 - Springer

Abstract. This paper presents a method of embedding circumscriptive theories in general disjunctive programs. In a general disjunctive program, negation as failure occurs not only in the body but in the head of a rule. In this setting, minimized predicates of a circumscriptive theory are ...

[Cited by 21](#) - [Related articles](#) - [BL Direct](#) - [All 7 versions](#)[Induction from answer sets in nonmonotonic logic programs](#)[\[PDF\] from uniba.sk](#)C Sakama - [ACM Transactions on Computational Logic \(TOCL\)](#), 2005 - [portal.acm.org](#)

1. INTRODUCTION Induction realizes concept learning by constructing general sentences from examples. In the context of computational logic, inductive machine learning is realized in the framework of Inductive Logic Programming (ILP) [Muggleton 1992; Muggleton and De ...

[Cited by 22](#) - [Related articles](#) - [All 8 versions](#) [Create email alert](#)

[Abductive logic programming and disjunctive logic programming: their relationship and transferability](#) [\[PDF\] from psu.edu](#)C Sakama... - [The Journal of Logic Programming, 2000](#) - Elsevier

Abductive logic programming (ALP) and disjunctive logic programming (DLP) are two different extensions of logic programming. This paper investigates the relationship between ALP and DLP from the program transformation viewpoint. It is shown that the belief set semantics of ...

[Cited by 21](#) - [Related articles](#) - [BL Direct](#) - [All 8 versions](#)[Partial deduction in disjunctive logic programming](#) [\[PDF\] from psu.edu](#)C Sakama... - [The Journal of Logic Programming, 1997](#) - Elsevier

This paper presents a partial deduction method in disjunctive logic programming. Partial deduction in normal logic programs is based on unfolding between normal clauses, hence it is not applicable to disjunctive logic programs in general. Then we introduce a new partial deduction ...

[Cited by 19](#) - [Related articles](#) - [BL Direct](#) - [All 7 versions](#)[\[PDF\] Abducing priorities to derive intended conclusions](#) [\[PDF\] from psu.edu](#)..., C Sakama - [International Joint Conference on Artificial ..., 1999](#) - Citeseer

We introduce a framework for finding preference information to derive desired conclusions in nonmonotonic reasoning. A new abductive framework called preference abduction enables us to infer an appropriate set of priorities to explain the given observation skeptically, ...

[Cited by 17](#) - [Related articles](#) - [View as HTML](#) - [BL Direct](#) - [All 8 versions](#)[Computing extended abduction through transaction programs](#) [\[PDF\] from psu.edu](#)..., C Sakama - [Annals of Mathematics and Artificial Intelligence, 1999](#) - Springer

To explain observations from nonmonotonic background theories, one often needs removal of some hypotheses as well as addition of other hypotheses. Moreover, some observations should not be explained, while some are to be explained. In order to formalize these ...

[Cited by 15](#) - [Related articles](#) - [BL Direct](#) - [All 8 versions](#)[Nonmonotonic Inductive Logic Programming](#) [\[PDF\] from psu.edu](#)C Sakama - [Logic Programming and Nonmonotonic Reasoning, 2001](#) - Springer

Abstract. Nonmonotonic logic programming (NMLP) and inductive logic programming (ILP) are two important extensions of logic programming. The former aims at representing incomplete knowledge and reasoning with commonsense, while the latter targets the problem of ...

[Cited by 17](#) - [Related articles](#) - [BL Direct](#) - [All 8 versions](#)[Inverse entailment in nonmonotonic logic programs](#) [\[PDF\] from psu.edu](#)C Sakama - [Inductive Logic Programming, 2000](#) - Springer

Abstract. Inverse entailment (IE) is known as a technique for finding inductive hypotheses in Horn theories. When a background theory is nonmonotonic, however, IE is not applicable in its present form. The purpose of this paper is extending the IE technique to nonmonotonic inductive ...

[Cited by 13](#) - [Related articles](#) - [BL Direct](#) - [All 6 versions](#)[\[CITATION\] Inductive logic programming](#) [\[HTML\] from unibo.it](#)N Lavrac... - [E. Horwood](#)[Cited by 853](#) - [Related articles](#) - [All 10 versions](#)[\[PDF\] Equivalence in abductive logic](#) [\[PDF\] from psu.edu](#)..., C Sakama - [INTERNATIONAL JOINT CONFERENCE ON ..., 2005](#) - Citeseer

We consider the problem of identifying equivalence of two knowledge bases which are capable of abductive reasoning. Here, a knowledge base is written in either first-order logic or nonmonotonic logic programming. In this work, we will give two definitions of abductive ...

[Cited by 11](#) - [Related articles](#) - [View as HTML](#) - [BL Direct](#) - [All 10 versions](#)[Computing preferred answer sets in answer set programming](#)T Wakaki, K Inoue, C Sakama... - [Logic for Programming, Artificial ..., 2003](#) - Springer

Abstract. Prioritized logic programs (PLPs) have a mechanism of representing priority knowledge in logic programs. The declarative semantics of a PLP is given as preferred answer sets which are used for representing nonmonotonic reasoning as well as preference abduction. ...

[Cited by 11](#) - [Related articles](#) - [BL Direct](#) - [All 4 versions](#)[Negotiation using logic programming with consistency restoring rules](#) [\[PDF\] from psu.edu](#)..., C Sakama - [Proceedings of the 21st international joint conference ..., 2009](#) - aaii.org

We formalize negotiations using logic programming with consistency restoring rules (or CR-Prolog) [Balduccini and Gelfond, 2003]. Our formulation deals with incomplete information, preferences, and changing goals. We assume that each agent is equipped ...

[Cited by 11](#) - [Related articles](#) - [All 8 versions](#) [Create email alert](#)

[Parallel control techniques for dedicated relational database engines](#)

H Itoh, M Abe, C Sakama... - Proceedings of the Third ..., 1987 - portal.acm.org

Google, Inc. (search). ...

[Cited by 11](#) - [Related articles](#) - [All 3 versions](#)[\[PDF\] On positive occurrences of negation as failure](#)[\[PDF\] from psu.edu](#)

..., C Sakama - Proc. of the 4th Int. Conf. on the Principles of ..., 1994 - Citeseer

Logic programs with positive occurrences of negation as failure have recently been introduced as a subset of the logic of minimal belief and negation as failure (MBNF). A unique feature of such programs, which other traditional logic programs lack, is that the minimality of ...

[Cited by 39](#) - [Related articles](#) - [View as HTML](#) - [All 7 versions](#)[Logic programming for multiagent planning with negotiation](#)[\[PDF\] from psu.edu](#)

..., E Pontelli, C Sakama - Logic Programming, 2009 - Springer

Abstract. Multiagent planning deals with the problem of generating plans for multiple agents. It requires formalizing ways for the agents to interact and cooperate, in order to achieve their goals. One way for the agents to interact is through negotiations. Integration of negotiation ...

[Cited by 10](#) - [Related articles](#) - [All 7 versions](#)[Negotiation by abduction and relaxation](#)[\[PDF\] from aamas-conference.org](#)

C Sakama... - Proceedings of the 6th international joint ..., 2007 - portal.acm.org

ABSTRACT This paper studies a logical framework for automated negotiation between two agents. We suppose an agent who has a knowledge base represented by a logic program. Then, we introduce methods of constructing counter-proposals in response to proposals ...

[Cited by 10](#) - [Related articles](#) - [All 2 versions](#)[Coordination in answer set programming](#)[\[PDF\] from psu.edu](#)

C Sakama... - ACM Transactions on Computational Logic (...), 2008 - portal.acm.org

This article studies a semantics of multiple logic programs, and synthesizes a program having such a collective semantics. More precisely, the following two problems are considered: given two logic programs P1 and P2, which have the collections of answer sets AS(P1) and ...

[Cited by 9](#) - [Related articles](#) - [All 6 versions](#)[Learning by answer sets](#)[\[PDF\] from psu.edu](#)

C Sakama - Working Notes of the AAAI Spring Symposium on ..., 2001 - aaai.org

Introduction Nonmonotonic logic programming (NMLP) introduces mechanisms of representing incomplete knowledge and reasoning with commonsense. An example of such extensions is extended logic programs with the answer set semantics (Gelfond and Lifschitz 1991). ...

[Cited by 9](#) - [Related articles](#) - [All 8 versions](#)[Coordination between logical agents](#)[\[PDF\] from psu.edu](#)

C Sakama... - Computational Logic in Multi-Agent Systems, 2005 - Springer

Abstract. In this paper we suppose an agent that has a knowledge base written in logic programming and sets of beliefs under the answer set semantics. We then consider the following two problems: given two logic programs P1 and P2, which have the sets of answer sets ...

[Cited by 8](#) - [Related articles](#) - [BL Direct](#) - [All 7 versions](#)[\[PDF\] Specifying transactions for extended abduction](#)[\[PDF\] from psu.edu](#)

..., C Sakama - PRINCIPLES OF KNOWLEDGE REPRESENTATION ..., 1998 - Citeseer

Extended abduction introduced by Inoue and Sakama (1995) generalizes traditional abduction in the sense that it can compute negative explanations by removing hypotheses from a nonmonotonic background theory, rather than only adding them. Also, it has a mechanism of computing ...

[Cited by 8](#) - [Related articles](#) - [View as HTML](#) - [BL Direct](#) - [All 6 versions](#)[Reasoning and planning with cooperative actions for multiagents using answer set programming](#)[\[PDF\] from psu.edu](#)

..., C Sakama - Declarative Agent Languages and Technologies VII, 2010 - Springer

Abstract. In this paper, we investigate the multiagent planning problem in the presence of cooperative actions and agents, which have their own goals and are willing to cooperate. To this end, we extend the action language A in [12] to represent and reason about plans with ...

[Cited by 8](#) - [Related articles](#) - [All 7 versions](#)[Some properties of inverse resolution in normal logic programs](#)[\[PDF\] from psu.edu](#)

C Sakama - Inductive Logic Programming, 1999 - Springer

Abstract. This paper studies the properties of inverse resolution in normal logic programs. The V-operators are known as operations for inductive generalization in definite logic programs. In the presence of negation as failure in a program, however, the V-operators ...

[Cited by 7](#) - [Related articles](#) - [BL Direct](#) - [All 7 versions](#) [Create email alert](#)

[Generality relations in answer set programming](#)[\[PDF\] from wakayama-u.ac.jp](#)..., C Sakama - *Logic Programming, 2006* - Springer

Abstract. This paper studies generality relations on logic programs. Intuitively, a program P1 is more general than another program P2 if P1 gives us more information than P2. In this paper, we define various kinds of generality relations over nonmonotonic programs in the ...

[Cited by 7](#) - [Related articles](#) - [BL Direct](#) - [All 4 versions](#)[Constructing consensus logic programs](#)[\[PDF\] from unive.it](#)C Sakama... - *Logic-Based Program Synthesis and Transformation, 2007* - Springer

Logic programming provides a formal language for representing knowledge and belief of an agent. The declarative semantics of a program is given by a set of canonical models which represent belief sets of an agent. Our primary interest in this paper is: what are the ...

[Cited by 7](#) - [Related articles](#) - [BL Direct](#) - [All 11 versions](#)[Combining answer sets of nonmonotonic logic programs](#)[\[PDF\] from psu.edu](#)C Sakama... - *Computational Logic in Multi-Agent Systems, 2006* - Springer

Abstract. This paper studies compositional semantics of nonmonotonic logic programs. We suppose the answer set semantics of extended disjunctive programs and consider the following problem. Given two programs P1 and P2, which have the sets of answer sets AS(P1) and ...

[Cited by 7](#) - [Related articles](#) - [BL Direct](#) - [All 7 versions](#)[Ordering default theories and nonmonotonic logic programs](#)C Sakama - *Theoretical computer science, 2005* - Elsevier

First-order theories are ordered under logical entailment based on the amount of information derived from theories. In default logic, on the other hand, a theory contains default information as well as definite information. To order default theories, distinguishing different sorts of ...

[Cited by 6](#) - [Related articles](#) - [All 4 versions](#)[Inductive negotiation in answer set programming](#)[\[PDF\] from unito.it](#)C Sakama - *Declarative Agent Languages and Technologies VI, 2009* - Springer

Abstract. This paper provides a logical framework of negotiating agents who have capabilities of evaluating and building proposals. Given a proposal, an agent decides whether it is acceptable or not. If the proposal is unacceptable as it is, the agent seeks conditions to accept it. ...

[Cited by 6](#) - [Related articles](#) - [All 4 versions](#)[CITATION] [A defeasible reasoning system in multi-agent environments](#)C Sakama, K Inoue, K Iwanuma... - ... on *Computational Logic in Multi-Agent ...*, 2000[Cited by 6](#) - [Related articles](#)[The effect of partial deduction in abductive reasoning](#)C Sakama... - In: *Proceedings of the 12th International Conference ...*, 1995 - Citeseer

Partial deduction is known as an optimization technique in logic programming. In the context of abductive logic programming, however, we present in this paper that normal partial deduction does not preserve explanations for abductive reasoning. Then we provide an alternative ...

[Cited by 5](#) - [Related articles](#) - [Cached](#) - [All 2 versions](#)[Disjunctive explanations](#)[\[PDF\] from psu.edu](#)..., C Sakama - *Logic Programming, 2002* - Springer

Abstract. Abductive logic programming has been widely used to declaratively specify a variety of problems in AI including updates in data and knowledge bases, belief revision, diagnosis, causal theory, and default reasoning. One of the most significant issues in abductive ...

[Cited by 5](#) - [Related articles](#) - [BL Direct](#) - [All 7 versions](#)[The PLP system](#)T Wakaki, K Inoue, C Sakama... - *Logics in Artificial Intelligence, 2004* - Springer

Prioritized Logic Programs (PLPs) [7] introduce explicit representation of priorities to logic programs. They realize various types of (prioritized) commonsense reasoning in artificial intelligence including preference abduction [5]. Recently, the authors realize a sound and complete ...

[Cited by 5](#) - [Related articles](#) - [BL Direct](#)[Partial evaluation of queries in deductive databases](#)C Sakama... - *New generation computing, 1988* - Springer

Abstract This paper presents some applications of partial evaluation method to a query optimization in deductive database. A Horn clause transformation is used for the partial evaluation of a query in an intensional database, and its application to multiple query processing is discussed. ...

[Cited by 5](#) - [Related articles](#) - [All 3 versions](#) [Create email alert](#)

[CITATION] On abductive equivalence..., C Sakama - [Model-Based Reasoning in Science and Engineering](#). ...[Cited by 5](#) - [Related articles](#)**[The diagnosis frontend of the dlv system](#)**[\[PDF\] from psu.edu](#)T Eiter, W Faber, N Leone... - [AI Communications](#), 1999 - [portal.acm.org](#)
... 21. Katsumi Inoue, Chiaki Sakama, Transforming abductive logic programs to disjunctive programs, Proceedings of the tenth international conference on logic programming on Logic programming, p.335-353, August 1993, Budapest, Hungary. ...[Cited by 74](#) - [Related articles](#) - [BL Direct](#) - [All 9 versions](#)**[PDF] [Ordering default theories](#)**[\[PDF\] from psu.edu](#)C Sakama - [INTERNATIONAL JOINT CONFERENCE ON ...](#), 2003 - [Citeseer](#)
In first-order logic, a theory Γ is considered stronger than another theory Δ if every formula derived from Δ is also derived from Γ . Such an order relation is useful to know relative value between different theories. In the context of de- fault logic, a theory contains default ...[Cited by 4](#) - [Related articles](#) - [View as HTML](#) - [BL Direct](#) - [All 6 versions](#)**[Generality and equivalence relations in default logic](#)**[\[PDF\] from wakayama-u.ac.jp](#)..., C Sakama - ... [OF THE NATIONAL CONFERENCE ON ARTIFICIAL ...](#), 2007 - [aaai.org](#)
Abstract Generality or refinement relations between different theories have important applications to generalization in inductive logic programming, refinement of ontologies, and coordination in multi-agent systems. We study generality relations in disjunctive default logic by com- ...[Cited by 4](#) - [Related articles](#) - [BL Direct](#) - [All 5 versions](#)**[Discovery of cellular automata rules using cases](#)**..., C Sakama - [Discovery Science](#), 2003 - [Springer](#)

Abstract. Cellular automata (CAs) are used for modeling the problem of adaptation in natural and artificial systems, but it is hard to design CAs having desired behavior. To support the task of designing CAs, this paper proposes a method for automatic discovery of cellular ...

[Cited by 4](#) - [Related articles](#) - [BL Direct](#) - [All 4 versions](#)**[PDF] [Abductive generalization and specialization](#)**[\[PDF\] from psu.edu](#)C Sakama - [Abduction and Induction-Essays on their Relation and ...](#), 2000 - [Citeseer](#)
Abstract. This chapter introduces new techniques called abductive generalization and abductive specialization in logic programs. Abductive generalization enables us to abduce not only specific facts but general rules accounting for positive observations. It is achieved by ...[Cited by 4](#) - [Related articles](#) - [View as HTML](#) - [All 2 versions](#)**[PDF] [Inductive extension of abduction](#)**[\[PDF\] from psu.edu](#)C Sakama - [Proc. IJCAI'97 Workshop on Abduction and Induction in ...](#) - [Citeseer](#)
1 Introduction Abduction and induction are two forms of commonsense reasoning in artificial intelligence. Generally, abduction infers explanatory facts for an observation using known rules in a background knowledge base, while induction infers new rules for an observation ...[Cited by 3](#) - [Related articles](#) - [View as HTML](#) - [All 9 versions](#)**[Brave induction](#)**C Sakama... - [Inductive Logic Programming](#), 2008 - [Springer](#)Abstract. This paper considers the following induction problem. Given the background knowledge B and an observation O, find a hypothesis H such that a consistent theory $B \wedge H$ has a minimal model satisfying O. We call this type of induction brave induction. Brave induction is ...[Cited by 4](#) - [Related articles](#) - [All 4 versions](#)**[Equivalence issues in abduction and induction](#)**[\[PDF\] from psu.edu](#)C Sakama... - [Journal of Applied Logic](#), 2009 - [Elsevier](#)
Consider a multiagent society where individual agents have their own knowledge bases. To solve problems cooperatively, agents must share their information in the society. It is likely, however, that the same information is represented in different ways by each agent. To ...[Cited by 3](#) - [Related articles](#) - [All 6 versions](#)**[PDF] [Identifying cellular automata rules](#)**[\[PDF\] from wakayama-u.ac.jp](#)..., C SAKAMA - [Journal of Cellular Automata](#), 2007 - [wakayama-u.ac.jp](#)
This paper studies a method for identifying cellular automata rules (CA rules). Given a sequence of CA configurations, we first seek an appropriate neighborhood of a cell and collect cellular changes of states as evidences. The collected evidences are then classified using a ...[Cited by 3](#) - [Related articles](#) - [View as HTML](#) - [All 5 versions](#) [Create email alert](#)

[Comparing abductive theories](#)..., C Sakama - [Proceeding of the 2008 conference on ECAI ...](#), 2008 - [portal.acm.org](#)

This paper introduces two methods for comparing explanation power of different abductive theories. One is comparing for observations, and the other is comparing explanation content for observations. Those two measures are represented by generality relations over ...

Cited by 2 - [Related articles](#) - [All 2 versions](#)[PDF] [On the existence of answer sets in normal extended logic programs](#)[\[PDF\] from uni.lu](#)..., C Sakama - [FRONTIERS IN ARTIFICIAL INTELLIGENCE ...](#), 2006 - [icr.uni.lu](#)

Abstract An often problematic feature in answer set programming is that a program does not always produce an answer set, even for programs which represent default information in a seemingly natural way. To cope with this problem, this paper introduces a class of normal ...

Cited by 2 - [Related articles](#) - [View as HTML](#) - [BL Direct](#) - [All 5 versions](#)[Inductive equivalence of logic programs](#)C Sakama... - [Inductive Logic Programming, 2005](#) - Springer

Abstract. This paper studies equivalence issues in inductive logic programming. A background theory B1 is inductively equivalent to another background theory B2 if B1 and B2 induce the same hypotheses for any given set of examples. Inductive equivalence is useful to ...

Cited by 2 - [Related articles](#) - [BL Direct](#) - [All 4 versions](#)[CITATION] [Inductive Negotiation in Answer Set Programming, Declarative Agent Languages and Technologies VI: 6th International Workshop, DALT 2008, Estoril, ...](#)

C Sakama - 2008 - Springer-Verlag, Berlin, Heidelberg

Cited by 2 - [Related articles](#)[Brave induction: a logical framework for learning from incomplete information](#)C Sakama... - [Machine learning, 2009](#) - Springer

Abstract This paper introduces a novel logical framework for concept-learning called brave induction. Brave induction uses brave inference for induction and is useful for learning from incomplete information. Brave induction is weaker than explanatory induction which is normally used ...

Cited by 3 - [Related articles](#) - [All 5 versions](#)[CITATION] [A Uniform Approach to Fixpoint Characterization of Disjunctive and General Logic Programs](#)

..., C Sakama - 1992 - Institute for New Generation ...

Cited by 2 - [Related articles](#)[CITATION] [Handling Knowledge by its Representative](#)

C Sakama, H Itoh... - 1988 - Institute for New Generation ...

Cited by 2 - [Related articles](#)[PDF] [Abduction and Induction in AI: Report of the IJCAI'97 Workshop](#)[\[PDF\] from psu.edu](#)PA Flach... - [Logic Journal of the Interest Group on Pure and ...](#), 1998 - Citeseer

... The workshop's organising committee consisted of Peter Flach (then at Tilburg University, Netherlands), Antonis Kakas (University of Cyprus), Raymond Mooney (University of Texas at Austin, USA) and Chiaki Sakama (Wakayama University, Japan). ...

Cited by 9 - [Related articles](#) - [View as HTML](#) - [All 10 versions](#)[A framework for compiling preferences in logic programs](#)[\[PDF\] from arxiv.org](#)JP Delgrande, T Schaub... - [Theory and Practice of Logic ...](#), 2003 - [portal.acm.org](#)

... 40. Sakama, C. and Inoue, K. (1996) Representing priorities in logic programs. In: Maher, M. (ed.), Proceedings Joint International Conference and Symposium on Logic Programming, pp. 82-96. Cambridge: The MIT Press. 41. ...

Cited by 81 - [Related articles](#) - [All 23 versions](#)[On properties of update sequences based on causal rejection](#)[\[PDF\] from arxiv.org](#)T Eiter, M Fink, G Sabbatini... - [Theory and Practice of ...](#), 2002 - [portal.acm.org](#)

... 204-210. Morgan Kaufmann. 33. Chiaki Sakama, Katsumi Inoue, Updating Extended Logic Programs through Abduction, Proceedings of the 5th International Conference on Logic Programming and Nonmonotonic Reasoning, p.147-161, December 02-04, 1999. ...

Cited by 91 - [Related articles](#) - [All 16 versions](#) [Create email alert](#)Result Page: [Previous](#) [1](#) [2](#) [3](#) [4](#) [5](#) [6](#) [7](#) [8](#) [9](#) [10](#) [11](#) [12](#) [13](#) [14](#) [15](#) [16](#) [Next](#)

[\[PDF\] Negotiation by induction \(short paper\)](#)[\[PDF\] from psu.edu](#)

C Sakama - Proc. 7th International Joint Conference on ... - Citeseer

1. INTRODUCTION Negotiation is a process of reaching agreement between different agents. In a typical one-to-one negotiation, an agent makes a proposal on his/her request and the opponent agent decides whether it is acceptable or not. If it is unacceptable, the ...

[Cited by 1](#) - [Related articles](#) - [View as HTML](#) - [All 5 versions](#)[Social Default Theories](#)

C Sakama - Logic Programming and Nonmonotonic Reasoning, 2009 - Springer

In a multiagent society, individual agents are requested to act interactively with other agents. Any problem, which is not solved by a single agent, could be solved cooperatively by exchanging information or sharing resources. It is usually the case, however, that an agent does not ...

[Cited by 1](#) - [Related articles](#) - [All 2 versions](#)[Negotiation by induction](#)

C Sakama - Proceedings of the 7th international joint conference on ..., 2008 - portal.acm.org

1. INTRODUCTION Negotiation is a process of reaching agreement between different agents. In a typical one-to-one negotiation, an agent makes a proposal on his/her request and the opponent agent decides whether it is acceptable or not. If it is unacceptable, the ...

[Cited by 1](#) - [Related articles](#)[\[PS\] On generality in abduction and induction](#)[\[PS\] from bris.ac.uk](#)

C Sakama... - ECAI Workshop on Abduction and Induction in AI ..., 1998 - cs.bris.ac.uk

1 Introduction Generality is an important notion in both abduction and induction. In abduction it is used as a criterion for selecting best explanations, while in induction it is a measure for learning appropriate theories. Thus, in both abduction and induction generality specifies ...

[Cited by 1](#) - [Related articles](#) - [View as HTML](#) - [All 8 versions](#)[A logical account of lying](#)[\[PDF\] from numericable.lu](#)

C Sakama, M Caminada... - Logics in Artificial Intelligence, 2010 - Springer

Abstract. This paper aims at providing a formal account of lying – a dishonest attitude of human beings. We first formulate lying under propositional modal logic and present basic properties for it. We then investigate why one engages in lying and how one reasons about lying. ...

[Cited by 3](#) - [Related articles](#) - [All 4 versions](#)[Abductive equivalence in first-order logic](#)

..., C Sakama - Logic Journal of IGPL, 2006 - Oxford Univ Press

In Artificial Intelligence, abduction is often formalized in first-order logic. In this article, we focus on the problem of identifying equivalence of two abductive theories represented in first-order logic. To this end, two definitions of equivalence are given for abduction. Explainable ...

[Cited by 1](#) - [Related articles](#) - [BL Direct](#) - [All 4 versions](#)[\[CITATION\] Studies on Disjunctive Logic Programming](#)

C Sakama - 1994 - Kyoto University

[Cited by 1](#) - [Related articles](#)[Ordered diagnosis](#)[\[PDF\] from psu.edu](#)

D Van Nieuwenborgh... - Logic for Programming, Artificial ..., 2003 - Springer

Page 1. Ordered Diagnosis Davy Van Nieuwenborgh and Dirk Vermeir Dept. of Computer Science, Vrije Universiteit Brussel, VUB, {dvnieuwe,dvermeir}@vub.ac.be Abstract. We propose to regard a diagnostic system as ...

[Cited by 13](#) - [Related articles](#) - [BL Direct](#) - [All 11 versions](#)[\[BOOK\] Nonmonotonic reasoning: Towards efficient calculi and implementations](#)

J Dix, U Furbach... - 2001 - portal.acm.org

Google, Inc. (search). ...

[Cited by 51](#) - [Related articles](#) - [All 6 versions](#)[Computing preferred answer sets by meta-interpretation in answer set programming](#)[\[PDF\] from arxiv.org](#)

T Eiter, W Faber, N Leone... - Theory and Practice of Logic ..., 2003 - portal.acm.org

Haya Shida, Subscribe (Full Service), Register (Limited Service, Free), Login. Search: The ACM Digital Library The Guide. ...

[Cited by 35](#) - [Related articles](#) - [All 20 versions](#) [Create email alert](#)