

SL 138

SPARQL

"Additional DB"
RDFS: views

extension (completion) of knowledge
algebraic evaluation

DB: Triples

e.g. $\forall x, y : \text{hasCat}(x, y) \rightarrow \text{Person}(x) \wedge \text{Cat}(y)$

$\hat{=}$ simple positive Datalog-style rules

Person(x) :- hasCat(x, -)
Cat(y) :- hasCat(-, y)

=> polynomial bottom up
more efficient: topdown
tableaux + algebraic
↳ Model Theory
- FOL
UI
DL

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SL 221A

2nd order atom:

input Transitive Property (descendant)

Pattern: instance of Transitivity axiom:

$\forall x, y, z : \text{desc}(x, y) \wedge \text{desc}(y, z) \rightarrow \text{desc}(x, z)$

↳ 2nd order rule ✓

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