Sl.642: porq.s :

$P_{(\emptyset,\emptyset)}$ = q(a) :- undef
p(a) :- undef

$T^{\omega}_{P_{(\emptyset,\emptyset)}}(\emptyset,\emptyset) = \{q(a)\,\text{undef}, p(a)\,\text{undef}\}$

result of AFP Comp: $(\emptyset,\emptyset) = W_P$

and there are two total stable models:

$\varphi_1 := (\{p(a)\}, \{q(a)\}) \leq W_P$

$\varphi_2 := (\{q(a)\}, \{p(a)\}) \leq W_P$

Consider $M := (\{q(a), p(a)\}, \emptyset)$

$M \models P$, but not 3-stable

Sl646: pos. Datalog prg P:

$\forall \mathcal{X} : P_{\mathcal{X}} = ground(P) \equiv P$

(no neg. literals in rules)

I_0 $\emptyset \longrightarrow I_1$

$T_{P_\emptyset}(\emptyset)$

$= T^{\omega}_{P_\emptyset}(\emptyset) = T^{\omega}_{P}(\emptyset)$

= minimal model

Strat. Prg. $P = P_0 \cup P_1 \cup \dots \cup P_n$ (n Strata)

over ≠ underestimate

n. Stratum finished

2. Stratum finished

$T_{P_1}^{\omega}(\emptyset)$

$\emptyset$

1 Stratum finished

$\rightarrow \forall$ Strata: all "possible" heads are derived

J_1

$S_1: T_{S_1}^{\omega}(\emptyset) \hat{=}$ minimal Modell of P_1

$\Rightarrow$ all true & false Atoms wrt. S_1 are derived

$P_\emptyset \rightsquigarrow$ ground instances of P replace neg. lits. ($\neg$ all "true")

FOL, Theorem Proving: $\neq$ DB: computing answers or models

Reasoning $P \models \varphi$

entails, d.h. $\forall J$: $J \models P \Rightarrow J \models \varphi$

$\chi \models \varphi$

spec

guarantees