Unification modulo Boolean Rings

Florian Starke

September 27, 2015

Structure

luiuh

asd

asd

(Axiom)	$\Gamma, A \vdash A$	
($\rightarrow$ -Introduction)	$\dfrac{\Gamma, A \vdash B}{\Gamma \vdash A \rightarrow B}$	
($\rightarrow$ -Elimination)	$\dfrac{\Gamma \vdash A \rightarrow B \quad \Gamma \vdash A}{\Gamma \vdash B}$	
($\forall$-Introduction)	$\dfrac{\Gamma \vdash B}{\Gamma \vdash \forall \alpha B}$	$\alpha \notin \mathsf{FV}(\Gamma)$
($\forall$-Elimination)	$\dfrac{\Gamma \vdash \forall \alpha B}{\Gamma \vdash B\,[\alpha := b]}$	$b \in \mathcal{V}_P$

asd

asd

(Axiom)	$\Gamma, x : t \vdash x : t$	
(λ-Introduction)	$\dfrac{\Gamma, x : t_1 \vdash M : t_2}{\Gamma \vdash \lambda x : t_1.M : t_1 \to t_2}$	
(λ-Elimination)	$\dfrac{\Gamma \vdash M_1 : t_1 \to t_2 \quad \Gamma \vdash M_2 : t_1}{\Gamma \vdash M_1 M_2 : t_2}$	
($\forall$-Introduction)	$\dfrac{\Gamma \vdash M : t}{\Gamma \vdash \Lambda\alpha.M : \forall\alpha.t}$	$\alpha \notin \mathsf{FV}(\Gamma)$
($\forall$-Elimination)	$\dfrac{\Gamma \vdash M : \forall\alpha.t}{\Gamma \vdash M\,t' : t\,[\alpha := t']}$	

asd

asd

$$\dfrac{\dfrac{\dfrac{\overline{\Gamma} \vdash x : \forall \vec{\alpha}(\overline{A_1} \to \cdots \to \overline{A_n} \to \textbf{false})}{\overline{\Gamma} \vdash x\vec{t} : P^1_{\widetilde{a}_1 \widetilde{b}_1} \to \cdots \to P^n_{\widetilde{a}_n \widetilde{b}_n} \to \textbf{false}} \qquad \overline{\Gamma} \vdash N_1 : P^1_{\widetilde{a}_1 \widetilde{b}_1}}{\vdots}}{\dfrac{\overline{\Gamma} \vdash x\vec{t}N_1 \ldots N_{n-1} : P^n_{\widetilde{a}_n \widetilde{b}_n} \to \textbf{false} \qquad \overline{\Gamma} \vdash N_n : P^n_{\widetilde{a}_n \widetilde{b}_n}}{\overline{\Gamma} \vdash (x\vec{t}N_1 \ldots N_{n-1})N_n : \textbf{false}}}$$