

Inference at *
of proof for Lemma fun_thru_spread:

$\vdash \forall A:\text{Type}, B:(A \rightarrow \text{Type}), p:(x:A \times B(x)), C, D:\text{Type}, f:(C \rightarrow D), b:(x:A \rightarrow B(x) \rightarrow C).$
 $f(\text{let } x,y = p \text{ in } b(x,y)) = \text{let } x,y = p \text{ in } f(b(x,y))$
by ((UnivCD)
CollapseTHENA ((Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 3:n
)) (first_tok :t) inil_term)))

1:

1. $A : \text{Type}$
 2. $B : A \rightarrow \text{Type}$
 3. $p : x:A \times B(x)$
 4. $C : \text{Type}$
 5. $D : \text{Type}$
 6. $f : C \rightarrow D$
 7. $b : x:A \rightarrow B(x) \rightarrow C$
- $\vdash f(\text{let } x,y = p \text{ in } b(x,y)) = \text{let } x,y = p \text{ in } f(b(x,y))$