Inference at $*$ 1 2
of proof for Lemma all_quot_elim:

1. T : Type
2. E : $T \to T \to \mathbb{P}$
3. EquivRel(T;x,y.$E(x,y)$)
4. F : (x,y:$T//(E(x,y))) \to \mathbb{P}$
5. $\forall w$:(x,y:$T//(E(x,y))$). SqStable($F(w)$)
6. $\forall z$:T. $F(z)$
7. z : x,y:$T//(E(x,y))$

$\vdash F(z)$

by ((((Unfold 'sq_stable' 5)
CollapseTHEN (BackThruHyp 5))·)
CollapseTHENA (
(Auto_aux (first_nat 1:n) ((first_nat 1:n),(first_nat 4:n)) (first_tok :t) inil_term)))·

1:

5. $\forall w$:(x,y:$T//(E(x,y))$). ($\downarrow(F(w))$) $\Rightarrow$ ($F(w)$)
6. $\forall z$:T. $F(z)$
7. z : x,y:$T//(E(x,y))$

$\vdash \downarrow(F(z))$

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