Inference at $*$
of proof for Lemma can-apply-fun-exp-add-iff:

$\vdash \forall A$:Type, n, m:$\mathbb{N}$, f:(A→(A + Top)), x:A.
(↑can-apply(f^n+m;x)) ⟺ ((↑can-apply(f^m;x)) & (↑can-apply(f^n;do-apply(f^m;x))))
by ((((UnivCD)
CollapseTHENA (Auto·))·)
CollapseTHEN ((if (((first_nat 2:n
)) = 0) then (Repeat (((D (0)·)
CollapseTHENA (MaAuto·))·)) else (RepeatFor (first_nat
2:n) (((D (0)·)
CollapseTHENA (MaAuto·))·)))·))·

1:

1. A : Type
2. n : $\mathbb{N}$
3. m : $\mathbb{N}$
4. f : A→(A + Top)
5. x : A
6. ↑can-apply(f^n+m;x)

$\vdash$ (↑can-apply(f^m;x)) & (↑can-apply(f^n;do-apply(f^m;x)))

2:

1. A : Type
2. n : $\mathbb{N}$
3. m : $\mathbb{N}$
4. f : A→(A + Top)
5. x : A
6. (↑can-apply(f^m;x)) & (↑can-apply(f^n;do-apply(f^m;x)))

$\vdash$ ↑can-apply(f^n+m;x)

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