

## chain-pullback<sup>13,45</sup>

$\forall es:ES, Sys:AbsInterface(Top), f:sys\text{-}antecedent(es;Sys), b, e:E(Sys).$

$b$  is  $f^*(e)$

$\Rightarrow (\neg(\text{loc}(b) = \text{loc}(e) \in \text{Id}))$

$\Rightarrow (\exists e':E(Sys)$

$(\text{loc}(e') = \text{loc}(e) \in \text{Id} \ \& \ e' \text{ is } f^*(e) \ \& \ b \text{ is } f^*(e') \ \& \ (\neg(\text{loc}(f(e')) = \text{loc}(e') \in \text{Id}))))$