

thread-ordered^{11,40}

$\forall es:ES, p:(E \rightarrow (E + \text{Top}))$.

$(\text{causal-predecessor}(es;p) \ \& \ \text{p-inject}(E;E;p))$

$\Rightarrow (\forall e, e':E. \text{same-thread}(es;p;e;e') \Rightarrow (((e < e') \vee (e = e')) \vee (e' < e)))$