## Inference System $\mathcal{G}$

### Superposition right:

$$\frac{\Gamma' \to l \approx r \quad \Gamma \to s \approx t}{\Gamma', \Gamma \to s[r]_p \approx t}$$

where:

$s|_p = l, l \succ r, s \succ t$,

$l \succ u$ for all $u$ occurring in $\Gamma'$,

$s \succ v$ for all $v$ occurring in $\Gamma$.

### Superposition left:

$$\frac{\Gamma' \to l \approx r \quad \Gamma, s \approx t \to \Delta}{\Gamma', \Gamma, s[r]_p \approx t \to \Delta}$$

where:

$s|_p = l, l \succ r, s \succ t$,

$l \succ u$ for all $u$ occurring in $\Gamma'$,

$s \succeq v$ for all $v$ occurring in $\Gamma, \Delta$.

### Equality Resolution:

$$\frac{\Gamma, s \approx s \to \Delta}{\Gamma \to \Delta}$$

where

$s \succeq v$ for all $v$ occurring in $\Gamma, \Delta$.