

STEP :

$$\frac{\begin{array}{l} \models \varphi \rightarrow \bigvee_{\varphi_l \Rightarrow^{\exists} \varphi_r \in \mathcal{S}} \exists \text{FreeVars}(\varphi_l). \varphi_l \\ \models ((\varphi \wedge \varphi_l) \neq \perp_{Cf_g}) \wedge \varphi_r \rightarrow \varphi' \quad \text{for each } \varphi_l \Rightarrow^{\exists} \varphi_r \in \mathcal{S} \end{array}}{\mathcal{S}, \mathcal{A} \vdash_C \varphi \Rightarrow^{\forall} \varphi'}$$

AXIOM :

$$\frac{\varphi \Rightarrow^Q \varphi' \in \mathcal{S} \cup \mathcal{A} \quad \psi \text{ is FOL formula (logical frame)}}{\mathcal{S}, \mathcal{A} \vdash_C \varphi \wedge \psi \Rightarrow^Q \varphi' \wedge \psi}$$

REFLEXIVITY :

$$\frac{\cdot}{\mathcal{S}, \mathcal{A} \vdash \varphi \Rightarrow^Q \varphi}$$

TRANSITIVITY :

$$\frac{\mathcal{S}, \mathcal{A} \vdash_C \varphi_1 \Rightarrow^Q \varphi_2 \quad \mathcal{S}, \mathcal{A} \cup C \vdash \varphi_2 \Rightarrow^Q \varphi_3}{\mathcal{S}, \mathcal{A} \vdash_C \varphi_1 \Rightarrow^Q \varphi_3}$$