

Henkin's Strong Completeness Theorem for PS: The Big Picture of Hunter's Proof of 32.14

$$\Gamma \models_p A \stackrel{32.14}{\implies} \Gamma \vdash_{\text{PS}} A$$



Contraposition in metatheory.

$$\Gamma \not\vdash_{\text{PS}} A \stackrel{32.14}{\implies} \Gamma \not\models_p A$$



32.7

Definition of \models_p .

$\Gamma \cup \{\sim A\}$ is p -consistent $\implies \Gamma \cup \{\sim A\}$ is m -consistent



Definition of m -consistency.

$$\left\{ \begin{array}{l} \Gamma \cup \{\sim A\} \text{ is PC } \stackrel{32.12}{\implies} \Gamma \cup \{\sim A\} \subseteq \Gamma' \text{ which is MPC} \\ + \\ \text{There is a model } I \text{ of } \Gamma' \text{ [32.13]} \end{array} \right\}$$