

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

$$\Gamma \models_P A \stackrel{32.14}{\implies} \Gamma \vdash_{PS} A$$

\Leftrightarrow Contraposition in metatheory.

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

32.7 \Leftrightarrow Definition of \models_P .

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

\Uparrow Definition of m -consistency.

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