

## Regras de inferência de DNP

$$\frac{\varphi \quad \psi}{\varphi \wedge \psi} \wedge I$$

$$\frac{\varphi \wedge \psi}{\varphi} \wedge_1 E \quad \frac{\varphi \wedge \psi}{\psi} \wedge_2 E$$

$$\frac{\begin{array}{c} \varnothing \\ \vdots \\ \psi \end{array}}{\varphi \rightarrow \psi} \rightarrow I$$

$$\frac{\varphi \quad \varphi \rightarrow \psi}{\psi} \rightarrow E$$

$$\frac{\begin{array}{c} \varnothing \\ \vdots \\ \perp \end{array}}{\neg \varphi} \neg I$$

$$\frac{\varphi \quad \neg \varphi}{\perp} \neg E$$

$$\frac{\varphi}{\varphi \vee \psi} \vee_1 I \quad \frac{\psi}{\varphi \vee \psi} \vee_2 I$$

$$\frac{\varphi \vee \psi \quad \begin{array}{c} \varnothing \\ \vdots \\ \sigma \end{array} \quad \begin{array}{c} \psi \\ \vdots \\ \sigma \end{array}}{\sigma} \vee E$$

$$\frac{\begin{array}{c} \varnothing \\ \vdots \\ \psi \end{array} \quad \begin{array}{c} \psi \\ \vdots \\ \varphi \end{array}}{\varphi \leftrightarrow \psi} \leftrightarrow I$$

$$\frac{\varphi \quad \varphi \leftrightarrow \psi}{\psi} \leftrightarrow_1 E \quad \frac{\psi \quad \varphi \leftrightarrow \psi}{\varphi} \leftrightarrow_2 E$$

$$\frac{\perp}{\varphi} (\perp)$$

$$\frac{\neg \varphi \quad \begin{array}{c} \vdots \\ \perp \end{array}}{\varphi} (RAA)$$