Klasyczny liniowy rachunek zdań

Aksjomaty

$$\varphi \vdash \varphi \quad \textbf{(A)}$$

Wymiana

$$\textbf{(RX)} \quad \frac{\Gamma, \varphi, \psi, \Delta \vdash \Sigma}{\Gamma, \psi, \varphi, \Delta \vdash \Sigma} \qquad \frac{\Gamma \vdash \Delta, \varphi, \psi, \Sigma}{\Gamma \vdash \Delta, \psi, \varphi, \Sigma} \quad \textbf{(LX)}$$

Wraz, Suma, Tensor, Par

(L&)	$\dfrac{\Gamma, \varphi \vdash \Sigma}{\Gamma, \varphi \,\&\, \psi \vdash \Sigma} \quad \dfrac{\Gamma, \psi \vdash \Sigma}{\Gamma, \varphi \,\&\, \psi \vdash \Sigma}$	$\dfrac{\Gamma \vdash \varphi, \Sigma}{\Gamma \vdash \varphi \oplus \psi, \Sigma} \quad \dfrac{\Gamma \vdash \psi, \Sigma}{\Gamma \vdash \varphi \oplus \psi, \Sigma}$	(R⊕)
(L⊕)	$\dfrac{\Gamma, \varphi \vdash \Sigma \quad \Gamma, \psi \vdash \Sigma}{\Gamma, \varphi \oplus \psi \vdash \Sigma}$	$\dfrac{\Gamma \vdash \varphi, \Sigma \quad \Gamma \vdash \psi, \Sigma}{\Gamma \vdash \varphi \,\&\, \psi, \Sigma}$	(R&)
(L⊗)	$\dfrac{\Gamma, \varphi, \psi \vdash \Sigma}{\Gamma, \varphi \otimes \psi \vdash \Sigma}$	$\dfrac{\Gamma \vdash \varphi, \psi, \Sigma}{\Gamma \vdash \varphi \parr \psi, \Sigma}$	(R⅋)
(L⅋)	$\dfrac{\Gamma, \varphi \vdash \Sigma \quad \Delta, \psi \vdash \Pi}{\Gamma, \Delta, \varphi \parr \psi \vdash \Sigma, \Pi}$	$\dfrac{\Gamma \vdash \varphi, \Sigma \quad \Delta \vdash \psi, \Pi}{\Gamma, \Delta \vdash \varphi \otimes \psi, \Sigma, \Pi}$	(R⊗)

Negacja

$$(\mathrm{L}^{\perp}) \quad \frac{\Gamma \vdash \varphi, \Sigma}{\Gamma, \varphi^{\perp} \vdash \Sigma} \qquad \frac{\Gamma, \varphi \vdash \Sigma}{\Gamma \vdash \varphi^{\perp}, \Sigma} \quad (\mathrm{R}^{\perp})$$

Implikacja

$$\frac{\Gamma \vdash \varphi, \Sigma \quad \Delta, \psi \vdash \Pi}{\Gamma, \Delta, \varphi \multimap \psi \vdash \Sigma, \Pi} \quad (\mathrm{L}\multimap)$$

$$\frac{\Gamma, \varphi \vdash \psi, \Sigma}{\Gamma \vdash \varphi \multimap \psi, \Sigma} \quad (\mathrm{R}\multimap)$$

Klasyczny liniowy rachunek zdań (c.d.)

Jeden, Dno, Zero, Top

(L1)	$\dfrac{\Gamma \vdash \Sigma}{\Gamma, 1 \vdash \Sigma}$	$\dfrac{\Gamma \vdash \Sigma}{\Gamma \vdash \Sigma, \bot}$	(R$\bot$)
(L$\bot$)	$\bot \vdash$	$\vdash 1$	(R1)
(L0)	$\Gamma, 0 \vdash \Sigma$	$\Gamma \vdash \top, \Sigma$	(R$\top$)
(L$\top$)	**nie ma reguły**	**nie ma reguły**	(R0)

Oczywiście, Być może

$(O!)$	$\dfrac{\Gamma \vdash \Sigma}{\Gamma, !\,\varphi \vdash \Sigma}$	$\dfrac{\Gamma \vdash \Sigma}{\Gamma \vdash ?\,\varphi, \Sigma}$	$(O?)$
$(L!)$	$\dfrac{\Gamma, \varphi \vdash \Sigma}{\Gamma, !\,\varphi \vdash \Sigma}$	$\dfrac{\Gamma \vdash \varphi, \Sigma}{\Gamma \vdash ?\,\varphi, \Sigma}$	$(R?)$
$(L?)$	$\dfrac{!\,\Gamma, \varphi \vdash ?\,\Sigma}{!\,\Gamma, ?\,\varphi \vdash ?\,\Sigma}$	$\dfrac{!\,\Gamma \vdash \varphi, ?\,\Sigma}{!\,\Gamma \vdash !\,\varphi, ?\,\Sigma}$	$(R!)$
$(S!)$	$\dfrac{\Gamma, !\,\varphi, !\,\varphi \vdash \Sigma}{\Gamma, !\,\varphi \vdash \Sigma}$	$\dfrac{\Gamma \vdash ?\,\varphi, ?\,\varphi, \Sigma}{\Gamma \vdash ?\,\varphi, \Sigma}$	$(S?)$

Cięcie

$$\frac{\Gamma \vdash \varphi, \Sigma \quad \Delta, \varphi \vdash \Pi}{\Gamma, \Delta \vdash \Sigma, \Pi} \quad \textbf{(Cut)}$$