

LIFLC – Règles de déduction naturelle

$$\frac{}{\Gamma, F \vdash F} \text{ (ax)}$$

$$\frac{\Gamma \vdash F}{\Gamma, G \vdash F} \text{ (aff)}$$

$$\frac{\Gamma, F \vdash G}{\Gamma \vdash F \Rightarrow G} \text{ } (\Rightarrow_i)$$

$$\frac{\Gamma \vdash F \Rightarrow G \quad \Gamma \vdash F}{\Gamma \vdash G} \text{ } (\Rightarrow_e)$$

$$\frac{\Gamma \vdash F \quad \Gamma \vdash G}{\Gamma \vdash F \wedge G} \text{ } (\wedge_i)$$

$$\frac{\Gamma \vdash F \wedge G}{\Gamma \vdash F} \text{ } (\wedge_e^g) \quad \frac{\Gamma \vdash F \wedge G}{\Gamma \vdash G} \text{ } (\wedge_e^d)$$

$$\frac{\Gamma \vdash F}{\Gamma \vdash F \vee G} \text{ } (\vee_i^g) \quad \frac{\Gamma \vdash G}{\Gamma \vdash F \vee G} \text{ } (\vee_i^d)$$

$$\frac{\Gamma \vdash F \vee G \quad \Gamma, F \vdash H \quad \Gamma, G \vdash H}{\Gamma \vdash H} \text{ } (\vee_e)$$

$$\frac{\Gamma, F \vdash \perp}{\Gamma \vdash \neg F} \text{ } (\neg_i)$$

$$\frac{\Gamma \vdash \neg F \quad \Gamma \vdash F}{\Gamma \vdash \perp} \text{ } (\neg_e)$$

$$\frac{\Gamma, \neg F \vdash \perp}{\Gamma \vdash F} \text{ } (\perp_c)$$

$$\frac{\Gamma \vdash F \text{ où } x \text{ non libre dans } \Gamma}{\Gamma \vdash \forall x, F} \text{ } (\forall_i)$$

$$\frac{\Gamma \vdash \forall x, F}{\Gamma \vdash F[x \rightarrow t]} \text{ } (\forall_e)$$

$$\frac{\Gamma \vdash F[x \rightarrow t]}{\Gamma \vdash \exists x, F} \text{ } (\exists_i)$$

$$\frac{\Gamma \vdash \exists x, F \quad \Gamma \cup \{F\} \vdash G \quad x \text{ libre ni dans } \Gamma \text{ ni dans } G}{\Gamma \vdash G} \text{ } (\exists_e)$$