

## Expressing propositions in $\mathcal{L}_2$ , second-order intuitionistic logic

## Macros

The conclusion is  $\exists x:D.A(x) \vee \exists x:D.B(x)$  which is just  $E_\ell \vee E_r$ .

A disjunct  $E_\ell \vee E_r$  is just  $\forall Y : \text{Prop.} ([E_\ell \Rightarrow Y] \Rightarrow [E_r \Rightarrow Y] \Rightarrow Y)$ .

So the full conclusion  $C$  is  $E_\ell \vee E_r$ .

The full proposition is  $H \Rightarrow C$  which is:

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