

Mode-Correctness of Bidirectional Typing

In synthesis mode, the information flow starts from the first premise

$$\frac{\Gamma, x : A \vdash t : \leftarrow B}{\Gamma \vdash \lambda x. t : \leftarrow A \supset B} \text{ABS} \leftarrow \quad \frac{\Gamma \vdash t : \Rightarrow \quad \Gamma \vdash u : \leftarrow}{\Gamma \vdash t u : \Rightarrow} \text{APP} \Rightarrow$$

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