

Равенство в Теории Типов

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Propositions as Types

Proposition	\leftrightarrow	Type
Proof	\leftrightarrow	Term
Proof simplification	\leftrightarrow	Computation

Propositions as Types

$$A \leftrightarrow A$$

$$A \wedge B \leftrightarrow A \times B$$

$$A \supset B \leftrightarrow A \rightarrow B$$

$$\forall x B(x) \leftrightarrow \Pi(x : A) B$$

$$x = y \leftrightarrow ???$$

Logic:

- ▶ Reflexivity $x = x$
- ▶ Congruence $\frac{x = y}{f(x) = f(y)}$
- ▶ Substiutivity $\frac{x = y \quad A_x}{A_y}$

Type theory:

- ▶ I_{xx}
- ▶ $\frac{I_{xy}}{I(fx)(fy)}$
- ▶ $\frac{I_{xy} \quad A_x}{A_y}$

HoTT

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ZOMBIE