

cubical evaluation semantics

Carlo Angiuli

Jon Sterling

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Colors: terms, value families, values, restrictions.

$$\begin{aligned}
 \llbracket (\lambda \{M\}) \rrbracket_{\rho} &= [\phi] \lambda \langle M, \rho, \phi \rangle \\
 \llbracket (\Pi A \{B\}) \rrbracket_{\rho} &= [\phi] \Pi(\phi^* \llbracket A \rrbracket_{\rho}, \langle B, \rho, \phi \rangle) \\
 \llbracket (M N) \rrbracket_{\rho} &= \llbracket M \rrbracket_{\rho} @ \llbracket N \rrbracket_{\rho} \\
 \llbracket x_i \rrbracket_{\rho} &= [_] \rho_i
 \end{aligned}$$

$$F @ G = [\phi] \left\{ \begin{array}{ll} F[\phi] \equiv \lambda \langle M, \rho, \psi \rangle & \Rightarrow \phi \circ \psi^* \llbracket M \rrbracket_{\rho, G[\phi]} \\ F[\phi] \equiv \text{neutral} & \Rightarrow \text{neutral} \\ F[\phi] \equiv \text{coe} & \Rightarrow \text{coe} \\ F[\phi] \equiv \text{hcom} & \Rightarrow \text{hcom} \end{array} \right.$$