Polymorphic parameters

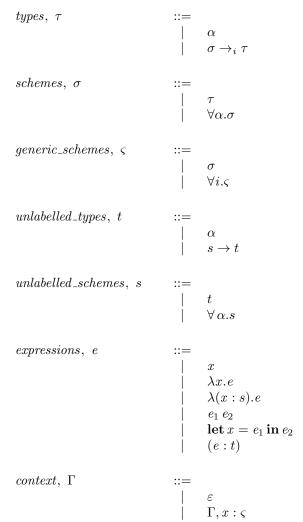
Leo White

1 Grammer

1.1 Meta-variables

termvar, x $typevar, \alpha$ label, i

1.2 Productions



2 Typing judgements

$$\Gamma \vdash e : \varsigma$$

$$\frac{\Gamma(x) = \varsigma}{\Gamma \vdash x : \varsigma} \quad \text{TYP_VAR} \qquad \frac{\Gamma, x : \tau_1 \vdash e : \tau_2}{\Gamma \vdash \lambda x . e : \tau_1 \rightarrow_i \tau_2} \quad \text{TYP_ABS} \qquad \frac{\Gamma, x : \varsigma \vdash e : \tau}{\Gamma \vdash \lambda (x : s) . e : \sigma \rightarrow_i \tau} \quad \text{TYP_POLY_ABS}$$

$$\frac{\Gamma \vdash e_1 : \tau_1 \rightarrow_i \tau_2}{\Gamma \vdash e_2 : \tau_1} \quad \text{TYP_APP} \qquad \frac{\Gamma \vdash e_1 : \forall i . \sigma \rightarrow_i \tau_2}{\Gamma \vdash e_2 : \sigma} \quad \text{TYP_POLY_APP}$$

$$\frac{\Gamma \vdash e_1 : \varsigma}{\Gamma \vdash e_1 e_2 : \tau_2} \quad \text{TYP_LET} \qquad \frac{\Gamma \vdash e : \sigma}{\Gamma \vdash e : \forall \alpha . \sigma} \quad \text{TYP_GEN_TYP} \qquad \frac{\Gamma \vdash e : \varsigma}{\Gamma \vdash e : \forall i . \varsigma} \quad \text{TYP_GEN_LABEL}$$

$$\frac{\Gamma \vdash e : \forall \alpha . \sigma}{\Gamma \vdash e : \forall \alpha . \sigma} \quad \text{TYP_INST_LABEL} \qquad \frac{t \sim \varsigma_1}{\Gamma \vdash e : \varsigma_1} \quad \text{TYP_ANNOT}$$