A Full Ott Spec

vars, *n*, *a*, *x*, *y*, *z*, *w*, *m*, *o*
ivar, *i*, *k*, *j*, *l*
const, *b*

A, B, C ::=
- | B
- | I
- | $A \otimes B$
- | $A \multimap B$
- | FX

X, Y, Z ::=
- | B
- | 1
- | $X \times Y$
- | $X \to Y$
- | GA

T ::=
- | A
- | X

Θ, Φ ::=
- | .
- | Θ_1, Θ_2
- | X
- | (Θ) S

Γ, Δ ::=
- | .
- | Γ_1, Γ_2
- | Θ
- | $\Theta; \Gamma$
- | A
- | (Γ) S

$\boxed{\Theta \vdash_C X}$

$$\frac{}{X \vdash_C X}\ \text{C\_AXIOM}$$

$$\frac{\Theta, X, X \vdash_C Y}{\Theta, X \vdash_C Y}\ \text{C\_CONTRACTION}$$

$$\frac{\Theta \vdash_C Y}{\Theta, X \vdash_C Y}\ \text{C\_WEAKENING}$$

$$\frac{\Theta \vdash_C X \quad X, \Phi \vdash_C Y}{\Theta, \Phi \vdash_C Y}\ \text{C\_CUT}$$

$$\frac{\Theta, X \vdash_C Z}{\Theta, X \times Y \vdash_C Z}\ \text{C\_prodL1}$$

$$\frac{\Theta, Y \vdash_C Z}{\Theta, X \times Y \vdash_C Z}\ \text{C\_prodL2}$$

$$\frac{\Theta \vdash_C X \quad \Phi \vdash_C Y}{\Theta, \Phi \vdash_C X \times Y}\ \text{C\_prodR}$$

$$\frac{}{\cdot \vdash_C 1}\ \text{C\_1R}$$

$$\frac{\Theta \vdash_C X \quad Y, \Phi \vdash_C Z}{\Theta, X \to Y, \Phi \vdash_C Z}\ \text{C\_impL}$$

$$\frac{\Theta, X \vdash_C Y}{\Theta \vdash_C X \to Y}\ \text{C\_impR}$$

$$\frac{\Theta \vdash_{\mathcal{L}} A}{\Theta \vdash_C \mathsf{G}A}\ \text{C\_GR}$$

$\boxed{\Gamma \vdash_{\mathcal{L}} A}$

$$\frac{}{A \vdash_{\mathcal{L}} A}\ \text{L\_axiom}$$

$$\frac{\Theta, X, X; \Gamma \vdash_{\mathcal{L}} A}{\Theta, X; \Gamma \vdash_{\mathcal{L}} A}\ \text{L\_contraction}$$

$$\frac{\Theta; \Gamma \vdash_{\mathcal{L}} A}{\Theta, X; \Gamma \vdash_{\mathcal{L}} A}\ \text{L\_weakening}$$

$$\frac{\Theta \vdash_C X \quad X, \Phi; \Gamma \vdash_{\mathcal{L}} A}{\Theta, \Phi; \Gamma \vdash_{\mathcal{L}} A}\ \text{L\_cut1}$$

$$\frac{\Theta; \Gamma \vdash_{\mathcal{L}} A \quad \Phi; A, \Delta \vdash_{\mathcal{L}} B}{\Theta, \Phi; \Gamma, \Delta \vdash_{\mathcal{L}} B}\ \text{L\_cut2}$$

$$\frac{\Theta, X; \Gamma \vdash_{\mathcal{L}} A}{\Theta, X \times Y; \Gamma \vdash_{\mathcal{L}} A}\ \text{L\_prodL1}$$

$$\frac{\Theta, Y; \Gamma \vdash_{\mathcal{L}} A}{\Theta, X \times Y; \Gamma \vdash_{\mathcal{L}} A}\ \text{L\_prodL2}$$

$$\frac{\Theta; \Gamma, A, B \vdash_{\mathcal{L}} C}{\Theta; \Gamma, A \otimes B \vdash_{\mathcal{L}} C}\ \text{L\_tenL}$$

$$\frac{\Theta; \Gamma \vdash_{\mathcal{L}} A \quad \Phi; \Delta \vdash_{\mathcal{L}} B}{\Theta, \Phi; \Gamma, \Delta \vdash_{\mathcal{L}} A \otimes B}\ \text{L\_tenR}$$

$$\frac{\Theta; \Gamma \vdash_{\mathcal{L}} A}{\Theta; \Gamma, \mathrm{I} \vdash_{\mathcal{L}} A}\ \text{L\_IL}$$

$$\frac{}{\cdot \vdash_{\mathcal{L}} \mathrm{I}}\ \text{L\_IR}$$

$$\frac{\Theta \vdash_C X \quad Y, \Phi; \Gamma \vdash_{\mathcal{L}} A}{\Theta, X \to Y, \Phi; \Gamma \vdash_{\mathcal{L}} A}\ \text{L\_impL1}$$

$$\frac{\Theta; \Gamma, A \vdash_{\mathcal{L}} B}{\Theta; \Gamma \vdash_{\mathcal{L}} A \multimap B}\ \text{L\_impR}$$

$$\dfrac{\dfrac{\Theta;\Gamma \vdash_{\mathcal{L}} A \quad \Phi;\Delta, B \vdash_{\mathcal{L}} C}{\Theta,\Phi;\Gamma, A \multimap B, \Delta \vdash_{\mathcal{L}} C}\ \text{L\_IMPL2}}{\dfrac{\Theta \vdash_{C} X}{\texttt{<<no parses (char 13): Theta |-c F*** X >>}}\ \text{L\_FR}}$$

$$\dfrac{\Theta, X;\Gamma \vdash_{\mathcal{L}} A}{\Theta;\mathsf{F}X,\Gamma \vdash_{\mathcal{L}} A}\ \text{L\_FL}$$

$$\dfrac{\Theta;B,\Gamma \vdash_{\mathcal{L}} A}{\Theta,\mathsf{G}B;\Gamma \vdash_{\mathcal{L}} A}\ \text{L\_GL}$$