A Full Ott Spec

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

A, B, C	::=		
	|	B	
	|	UnitS	
	|	$A \triangleright B$	
	|	$A \rightharpoonup B$	
	|	$A \leftharpoonup B$	
	|	FX	
X, Y, Z	::=		
	|	B	
	|	UnitT	
	|	$X \otimes Y$	
	|	$X \multimap Y$	
	|	GA	
T	::=		
	|	A	
	|	X	
Φ, Ψ	::=		
	|	$\cdot$	
	|	Φ_1, Φ_2	
	|	X	
	|	(Φ)	S
Γ, Δ	::=		
	|	$\cdot$	
	|	A	
	|	Φ	
	|	Γ_1, Γ_2	
	|	(Γ)	S

$\boxed{\Phi \vdash_C X}$

$$\frac{}{X \vdash_C X}\ \text{T\_AX}$$

$$\frac{\Phi, \Psi \vdash_C X}{\Phi, \text{UnitT}, \Psi \vdash_C X}\ \text{T\_UNITL}$$

$$\frac{}{\cdot \vdash_C \text{UnitT}}\ \text{T\_UNITR}$$

$$\frac{\Phi, X, Y, \Psi \vdash_C Z}{\Phi, Y, X, \Psi \vdash_C Z}\ \text{T\_BETA}$$

$$\frac{\Phi_1, X, \Phi_2, X, \Phi_3 \vdash_C Y}{\Phi_1, \Phi_2, X, \Phi_3 \vdash_C Y}\ \text{T\_contrR}$$

$$\frac{\Phi_1, X, \Phi_2, X, \Phi_3 \vdash_C Y}{\Phi_1, X, \Phi_2, \Phi_3 \vdash_C Y}\ \text{T\_contrL}$$

$$\frac{\Phi, \Psi \vdash_C Y}{\Phi, X, \Psi \vdash_C Y}\ \text{T\_weak}$$

$$\frac{\Phi \vdash_C X}{\Psi_1, \Phi, \Psi_2 \vdash_C Y}\ \text{T\_cut}$$

$$\frac{\Phi \vdash_C X}{\Psi_1, \Phi, \Psi_2 \vdash_C Y}\ \text{T\_cutn}$$

$$\frac{\Phi, X, Y, \Psi \vdash_C Z}{\Phi, X \otimes Y, \Psi \vdash_C Z}\ \text{T\_tenL}$$

$$\frac{\Phi \vdash_C X \quad \Psi \vdash_C Y}{\Phi, \Psi \vdash_C X \otimes Y}\ \text{T\_tenR}$$

$$\frac{\Phi \vdash_C X}{\Psi_1, \Phi, X \multimap Y, \Psi_2 \vdash_C Z}\ \text{T\_impL}$$

$$\frac{\Phi, X, \Psi \vdash_C Y}{\Phi, \Psi \vdash_C X \multimap Y}\ \text{T\_impR}$$

$$\frac{\Phi \vdash_{\mathcal{L}} A}{\Phi \vdash_C \mathsf{G}A}\ \text{T\_GR}$$

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

$$\frac{}{A \vdash_{\mathcal{L}} A}\ \text{S\_ax}$$

$$\frac{\Gamma, \Delta \vdash_{\mathcal{L}} A}{\Gamma, \mathsf{UnitT}, \Delta \vdash_{\mathcal{L}} A}\ \text{S\_unitL1}$$

$$\frac{\Gamma, \Delta \vdash_{\mathcal{L}} A}{\Gamma, \mathsf{UnitS}, \Delta \vdash_{\mathcal{L}} A}\ \text{S\_unitL2}$$

$$\frac{}{\cdot \vdash_{\mathcal{L}} \mathsf{UnitS}}\ \text{S\_unitR}$$

$$\frac{\Gamma, X, Y, \Delta \vdash_{\mathcal{L}} A}{\Gamma, Y, X, \Delta \vdash_{\mathcal{L}} A}\ \text{S\_beta}$$

$$\frac{\Gamma_1, X, \Gamma_2, X, \Gamma_3 \vdash_{\mathcal{L}} A}{\Gamma_1, \Gamma_2, X, \Gamma_3 \vdash_{\mathcal{L}} A}\ \text{S\_contrR}$$

$$\frac{\Gamma_1, X, \Gamma_2, X, \Gamma_3 \vdash_{\mathcal{L}} A}{\Gamma_1, X, \Gamma_2, \Gamma_3 \vdash_{\mathcal{L}} A}\ \text{S\_contrL}$$

$$\frac{\Gamma, \Delta \vdash_{\mathcal{L}} A}{\Gamma, X, \Delta \vdash_{\mathcal{L}} B}\ \text{S\_weak}$$

$$\frac{\Phi \vdash_C X \quad \Gamma_1, X, \Gamma_2 \vdash_{\mathcal{L}} A}{\Gamma_1, \Phi, \Gamma_1 \vdash_{\mathcal{L}} A}\ \text{S\_cut1}$$

$$\frac{\Gamma \vdash_{\mathcal{L}} A \quad \Delta_1, A, \Delta_2 \vdash_{\mathcal{L}} B}{\Delta_1, \Gamma, \Delta_2 \vdash_{\mathcal{L}} B} \text{ S\_CUT2}$$

$$\frac{\Gamma, X, Y, \Delta \vdash_{\mathcal{L}} A}{\Gamma, X \otimes Y, \Delta \vdash_{\mathcal{L}} A} \text{ S\_TENL1}$$

$$\frac{\Gamma, A, B, \Delta \vdash_{\mathcal{L}} C}{\Gamma, A \triangleright B, \Delta \vdash_{\mathcal{L}} C} \text{ S\_TENL2}$$

$$\frac{\Gamma \vdash_{\mathcal{L}} A \quad \Delta \vdash_{\mathcal{L}} B}{\Gamma, \Delta \vdash_{\mathcal{L}} A \triangleright B} \text{ S\_TENR}$$

$$\frac{\Phi \vdash_{C} X \quad \Gamma, Y, \Delta \vdash_{\mathcal{L}} A}{\Gamma, \Phi, X \multimap Y, \Delta \vdash_{\mathcal{L}} A} \text{ S\_IMPL}$$

$$\frac{\Gamma \vdash_{\mathcal{L}} A \quad \Delta, B \vdash_{\mathcal{L}} C}{\Delta, A \rightharpoonup B, \Gamma \vdash_{\mathcal{L}} C} \text{ S\_IMPRL}$$

$$\frac{\Gamma \vdash_{\mathcal{L}} A \quad B, \Delta \vdash_{\mathcal{L}} C}{\Gamma, B \leftharpoonup A, \Delta \vdash_{\mathcal{L}} C} \text{ S\_IMPLL}$$

$$\frac{\Gamma, A \vdash_{\mathcal{L}} B}{\Gamma \vdash_{\mathcal{L}} A \rightharpoonup B} \text{ S\_IMPRR}$$

$$\frac{A, \Gamma \vdash_{\mathcal{L}} B}{\Gamma \vdash_{\mathcal{L}} B \leftharpoonup A} \text{ S\_IMPLR}$$

$$\frac{\Phi \vdash_{C} X}{\Phi \vdash_{\mathcal{L}} \mathsf{F}X} \text{ S\_FR}$$

$$\frac{\Gamma, X, \Delta \vdash_{\mathcal{L}} A}{\Gamma, \mathsf{F}X, \Delta \vdash_{\mathcal{L}} A} \text{ S\_FL}$$

$$\frac{\Gamma, A, \Delta \vdash_{\mathcal{L}} B}{\Gamma, \mathsf{G}A, \Delta \vdash_{\mathcal{L}} B} \text{ S\_GL}$$