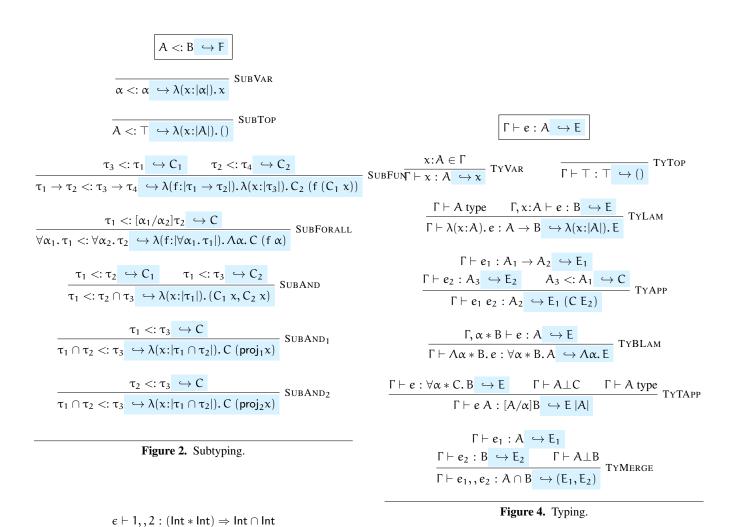
Atomic Types 
$$T$$
  $:= A \rightarrow B \ | T \text{ Top type} \ | T \text{ Top type} \ | T \text{ Top type} \ | T \text{ A} \cap B \ | T \text{ A} \cap B \ | T \text{ A} \cap B \ | T \text{ Atomic type} \ | T \text{ Atomic type}$ 

Figure 1. Syntax.

Figure 3. Disjointness.



**Definition 1.** (Disjointness) Two sets S and T are *disjoint* if there does not exist an element x, such that  $x \in S$  and  $x \in T$ .

**Definition 2.** (Disjointness) Two types A and B are *disjoint* if there does not exist an expression e, which is not a merge, such that  $e \vdash e : A', e \vdash e : B', A' <: A$ , and B' <: B.

**Definition 3.** (Disjointness)  $A \perp B = \not\exists C.A <: C \land B <: C$ 

Two types A and B are disjoint if their least common supertype is  $\top.$