Notes on Fibrational Semantics of Simple, Polymorphic, and Dependent Type Theory

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1 The Simple Fibration

Definition 1.1. *A* CT-structure *is a pair* $(\mathbb{B}, T)$ *where* $\mathbb{B}$ *is a category with finite products, and* $T \subseteq \mathsf{Obj}(\mathbb{B})$ *is a collection of types.*

A CT-structure $(\mathbb{B}, T)$ should be thought of as a category of contexts $\mathbb{B}$ whose types draw their atomic elements from T. Given contexts $\Gamma, \Delta \in \mathsf{Obj}(\mathbb{B})$, their concatenation $(\Gamma, \Delta) = (\Gamma \times \Delta)$.

Definition 1.2. *...*

Definition 1.3. *...*