

Reflections on Prismatic Constructions

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The Calculus of Prismatic Constructions, upon which this platform is based, is an extension of the standard CoC with a mechanism for discriminating inductive constructors.	

The Problem

Inductive types can be described as enumerations of constructors. In Coq (and similarly in other proof assistants), an inductive type must be declared along with its constructors, using a syntax like :

```
Inductive T : forall A..., Type :=
| t0 : forall x0..., T (f0... x0...)
...
| tn : forall xn..., T (fn... xn...)
.
```

Here, we declare the inductive type $T : \forall A..., Type$.