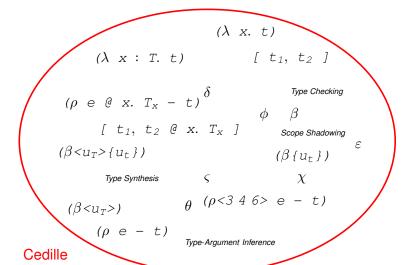
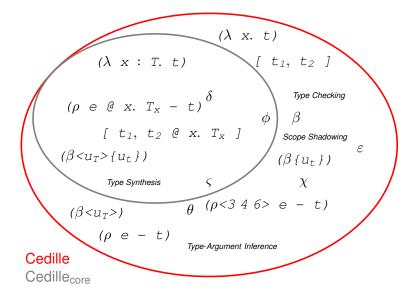
What is Cedillecore?

- Independent implementation of CDLE (fact check?)
- Under 1000 lines of code, in Haskell
- Austere sublanguage of Cedille
- Cedille sanity check

Cedille vs. Cedillecore



Cedille vs. Cedillecore



ullet Classify λ -terms

$$\lambda$$
 x. t \rightsquigarrow λ x : T. t

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Insert infered type arguments

 $id zero \rightarrow id \cdot Nat zero$

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Specify where rewrites occur in ρ-terms

$$? \sim ?$$

• Provide dependent type of second projection in ι -pairs

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[ zero', zeroi ] \sim [ zero', zeroi @ x. T_x ]
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• Ensure β -terms supply both a term t for proving $\{t \geq t\}$ and one for erasure

$$\beta \rightsquigarrow \beta < t > \{\lambda \ x. \ x\}$$

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• Convert δ -contradictions to Church-encoded $\{\ tt \simeq ff\ \}$ $tt = \lambda \ x. \ \lambda \ y. \ x, \ ff = \lambda \ x. \ \lambda \ y. \ y, \ zero = \lambda \ f. \ \lambda \ x. \ x, \ suc = \lambda \ n. \ \lambda \ f. \ \lambda \ x. \ s \ (n \ f \ x)$ $\{suc \ n \simeq zero\} \leadsto \{suc \ n \ (\lambda \ _. \ tt) \ ff \simeq zero \ (\lambda \ _. \ tt) \ ff\}$

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- Expand module parameters and import arguments