Formal Derivation
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CS 4120

Judgements
exhibits
content \vdash \text{property}

Contexts in Cubex
• \( \Psi \) – Class/Interface context
  – Specifies methods, inheritance, and classiness
• \( \Theta \) – Kind context
  – Indicates what type variables are in scope
• \( \Delta \) – Function context
  – Indicates the type schemes of functions in scope
• \( \Gamma \) – Type context
  – Indicates the types of variables in scope

Inference Rules

Proof Derivations
Subtyping

\[ \Phi(\theta) < \tau \implies \Phi(\theta(\tau)) \text{ extends } \tau \]

Method Lookup

\[ \Phi(\theta) = \tau \implies \Phi(\omega(\theta), \tau) \]

Types

\[ \Phi(\theta) < \tau \]
\[ \Phi(\theta) \downarrow < \tau \]
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