λμ-calculus

Using Krivine's notation

Syntax	Name	Description
(μβu)v ▷ μβu[[β](w)v/[β]w]	Structural reduction	**u[[β](w)v/[β]w]** ~ replace each subterm of the form **[β]w** by **[β](w)v**
[α]μβu ▷ u[α/β]	Renaming	Rename all **β** in **u** with **α**

Semantically this extension is continuations

Continuation = (A -> B) -> B

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Evaluation strategies

call-by-value

Evaluate arguments first

call-by-name

Evaluate argument when it was called

(fix)f = (f)(fix)f

(\xy)(fix)f -> y **for call-by-name**
(\xy)(fix)f -> … **for call-by-value**

(fix)f **->** (f)(f)(f)… **for call-by-name**
(fix)f **->** … **for call-by-value**

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