

Type equivalence algorithm sec:algorithm

$$\begin{aligned}
& (X_1X_4, Y_1Y_3) \\
& (X_1Y_1, X_4Y_3) \\
& (X_1X_1X_2, Y_1Y_1Y_2) \\
& (X_3, Y_2) \\
& (X_4, Y_3) \\
& (X_1X_1X_2, Y_1Y_1Y_2) \\
& (X_1X_2, \varepsilon) \\
& (Y_1Y_2, \varepsilon) \\
& (X_1X_2, Y_1Y_2) \\
& (X_1, Y_1) \\
& (X_2, Y_2) \\
& (X_3, Y_2) \\
& (\varepsilon, \varepsilon) \\
& \emptyset \\
& (X\alpha, Y\beta) \\
& (X\alpha', Y\beta') \\
& (\alpha, \alpha'), (\beta, \beta') \\
& (X, Y\gamma), (\gamma\alpha, \beta)
\end{aligned}$$

X and Y normed

$$\text{norm } (X) = \text{norm } (Y\gamma)$$

We start by recalling the type equivalence problem.

quote Given context-free session types S and T , the type equivalence problem consists in deciding if types S and T are equivalent, i.e., $S \sim T$.