

Reduction relation for MELL Proof-Nets

Let us consider :

$$E = A \cup B$$

$$CE = \{Ax-cut, \wp-\otimes, w-b, d-b, c-b, b-b\}$$

$$R = CE \cup \{U, V\}$$

The reduction relation on MELL proof-nets is generated by the reduction rules R and congruence axioms E :

$$p \rightarrow_{R/E} p' \text{ iff } \exists p_1, p_2 \ p \sim_E p_1 \rightarrow_R p_2 \sim_E p'$$

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Termination properties of proof-nets

(Girard)

The reduction system generated by the reduction rules CE is SN.

(DiCosmo-Guerrini)

The reduction system generated by the reduction rules $CE \cup V$ modulo the axioms E is SN.

(Polonovski)

The reduction relation R/E is SN.

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