seq.1 Structural Rules

The structural rules for $n$-sided sequent calculus operate as in the classical case, except for each position $i$.

\[
\frac{\Gamma_1 | \ldots | \Gamma_i | \ldots | \Gamma_n}{\Gamma_1 | \ldots | \varphi, \Gamma_i | \ldots | \Gamma_n} \quad W_i
\]

\[
\frac{\Gamma_1 | \ldots | \varphi, \varphi, \Gamma_i | \ldots | \Gamma_n}{\Gamma_1 | \ldots | \varphi, \Gamma_i | \ldots | \Gamma_n} \quad C_i
\]

\[
\frac{\Gamma_1 | \ldots | \Gamma_i, \varphi, \psi, \Gamma_i' | \ldots | \Gamma_n}{\Gamma_1 | \ldots | \Gamma_i, \psi, \varphi, \Gamma_i' | \ldots | \Gamma_n} \quad X_i
\]

A series of weakening, contraction, and exchange inferences will often be indicated by double inference lines.

The Cut rule comes in several forms, one for every combination of distinct positions in the sequent $i \neq j$:

\[
\frac{\Gamma_1 | \ldots | \varphi, \Gamma_i | \ldots | \Gamma_n \quad \Delta_1 | \ldots | \varphi, \Delta_j | \ldots | \Delta_n}{\Gamma_1, \Delta_1 | \ldots | \Gamma_n, \Delta_n} \quad \text{Cut}_i, j
\]

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Bibliography