seq.1 Structural Rules

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

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

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

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

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 $i \neq j$:

\[
\frac{\Gamma_1 | \ldots | \varphi, \Gamma_i | \ldots | \Gamma_n \quad \Delta_1 | \ldots | \varphi, \Delta_j | \ldots | \Delta_n}{\Gamma_1, \Delta_1 | \ldots | \Gamma_n, \Delta_n} \quad Cut_{i,j}
\]

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Bibliography