

Intuitionistic Linear Logic

Supports the following data-usage constraints:

- **Linear usage (one)**
- **Affine usage (one or none)**
- **Non-linear usage (tons)**



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$$\frac{\Gamma_1, \Gamma_2 \vdash B}{\Gamma_1, !A, \Gamma_2 \vdash B} \text{ } W$$

$$\frac{\Gamma_1, !A, !A, \Gamma_2 \vdash B}{\Gamma_1, !A, \Gamma_2 \vdash B} \text{ } C$$

$$\frac{! \Gamma \vdash B}{! \Gamma \vdash !B} \text{ } P$$

$$\frac{\begin{array}{c} \Gamma_1 \vdash !A_1, \dots, \Gamma_i \vdash !A_i \\ !A_1, \dots, !A_i \vdash B \end{array}}{\Gamma_1, \dots, \Gamma_i \vdash B} \text{ } D$$