Custom Equation Tags Test

Test Section

A normal numbered equation:

$$x = y + z \tag{1}$$

A tagged equation (should show "Condition" not a number):

$$Y \uparrow^{t} E \mid S \setminus \{Y\} \tag{Condition}$$

Another tagged equation:

$$E \perp^{t} \sigma(\mathcal{C}(E) \setminus S) \mid \sigma(S) \tag{Markov}$$

A LaTeX-symbol-tagged equation (should show " " not " "):

$$x^2 + y^2 = z^2 \tag{$\star$}$$

A dollar-wrapped LaTeX tag (should show " " same as bare backslash):

$$y = x \tag{$\star$}$$

Dollar-wrapped double-star tag:

$$\frac{a}{b} = \frac{c}{d} \tag{$\star\star$}$$

Dollar-wrapped dagger tag:

$$\alpha + \beta = \gamma \tag{$\dagger$}$$

Inline-paragraph equation with dollar-wrapped tag. For any variables X_i and X_j, consider

$$\frac{P^{t_{X_j}}(X_i)}{P^{t_{X_i}}(X_j)} = \frac{P^t(X_i)}{P^t(X_j)}. \tag{$\star$}$$

Another inline-paragraph equation referencing prior tags. Combined with $\star$, this means

$$\frac{Q(X_i)}{Q(X_j)} = \frac{R(X_i)}{R(X_j)}. \tag{$\dagger$}$$

Xrefs to $\star$ and $\dagger$ in running text.

Another normal numbered equation (should be number 2, not 3):

$$a = b + c \tag{2}$$

Cross-references

- Normal ref: Equation 1 should show "Equation 1"
- Tagged ref: Condition should show "Condition"
- Tagged ref: Markov should show "Markov"
- LaTeX tag ref: $\star$ should show the star symbol
- Dollar-wrapped LaTeX tag ref: $\star$ should show the star symbol
- Double-star tag ref: $\star\star$ should show
- Dagger tag ref: $\dagger$ should show $\dagger$
- Inline equation ref: $\star$ should show
- Inline equation ref: $\dagger$ should show $\dagger$
- Normal ref: Equation 2 should show "Equation 2"

Cross-references inside math

A plain-text tag ref inside math (should resolve "Condition" as a link):

$$\text{Truncated Factorization (Condition)} = 0$$

A LaTeX-symbol tag ref inside math (should resolve star symbol as a link):

$$\text{See } \star \text{ for details}$$

Multiple refs inside one equation:

Combining Condition and $\star$ gives a result