

# Custom macros

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## Expectation value

$$\text{\texttt{\$}\expval\{a\}\text{\texttt{\$}}} \rightarrow \langle a \rangle$$

$$\text{\texttt{\$\$\expval\{\diff{f}{t}\}\text{\texttt{\$}}\text{\texttt{\$}}}}$$

$$\rightarrow \left\langle \frac{df}{dt} \right\rangle$$

## Commutation

### Commutator

$$\text{\texttt{\$\comm\{op{x}\}\{op{p}\}\text{\texttt{\$}}} = i\hbar \text{\texttt{\$}}} \rightarrow [\hat{x}, \hat{p}] = i\hbar$$

### Anticommutator

$$\text{\texttt{\$\$\acomm\{op{c}\{i\}\}\{hc{c}\{j\}\}\text{\texttt{\$}} = \delta_{\alpha, \beta} \text{\texttt{\$}}\text{\texttt{\$}}}}$$

$$\rightarrow \{\hat{c}_i, \hat{c}_j^\dagger\} = \delta_{\alpha, \beta}$$