

Custom macros

Ian Mitchell

2023-04-04

Expectation value

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

$$\text{\$\$}\backslash\text{expval}\{\text{\textbackslashdiff}\{f\}\{t\}\}\text{\$}$$

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

Commutation

Commutator

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

Anticommutator

$$\text{\$\$}\backslash\text{acomm}\{\text{\textbackslashop}\{c\}\{i\}\}\{\text{\textbackslashhc}\{c\}\{j\}\} = \delta_{\alpha, \beta} \text{\$}$$

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