

DeclareAlgebra [QU, Generators \rightarrow {y, a, x},
Centrals \rightarrow {t, T}];

B [a_{QU}, y_{QU}] = $-\gamma$ y_{QU}; **B** [x_{QU}, a_{QU}] = $-\gamma$ QU@x;

B [x_{QU}, y_{QU}] := **SS** [q \hbar - 1] QU@{y, x} +
 \mathbb{O}_{QU} [{a}, **SS** [(1 - T e^{-2 ϵ a \hbar}) / \hbar]];

(**S**@y_{QU} := \mathbb{O}_{QU} [{a, y}, **SS** [-T⁻¹ e ^{$\hbar \epsilon$ a} y]]); **S**@a_{QU} = -a_{QU};
S@x_{QU} := \mathbb{O}_{QU} [{a, x}, **SS** [-e ^{$\hbar \epsilon$ a} x]]);

S_{i_} [QU, Centrals] = {t_i \rightarrow -t_i, T_i \rightarrow T_i⁻¹};

Δ @y_{QU} := \mathbb{O}_{QU} [{y₁, a₁}₁, {y₂}₂, **SS** [y₁ + T₁ e^{- $\hbar \epsilon$ a₁} y₂]]);

Δ @a_{QU} = QU@a₁ + QU@a₂;

Δ @x_{QU} := \mathbb{O}_{QU} [{a₁, x₁}₁, {x₂}₂, **SS** [x₁ + e^{- $\hbar \epsilon$ a₁} x₂]]);

Δ _{i_ \rightarrow j_,k_} [QU, Centrals] = {t_i \rightarrow t_j + t_k, T_i \rightarrow T_j T_k};