

Define  $[C_i = \mathbb{E}_{\{\} \rightarrow \{i\}} [\theta, \theta, B_i^{1/2} e^{-\hbar \epsilon a_i / 2}]_{\$k}$ ,

$\bar{C}_i = \mathbb{E}_{\{\} \rightarrow \{i\}} [\theta, \theta, B_i^{-1/2} e^{\hbar \epsilon a_i / 2}]_{\$k}$ ,

$Kink_i = (R_{1,3} \bar{C}_2) // dm_{1,2 \rightarrow 1} // dm_{1,3 \rightarrow i}$ ,

$\overline{Kink}_i = (\bar{R}_{1,3} C_2) // dm_{1,2 \rightarrow 1} // dm_{1,3 \rightarrow i}$