

$m_{i,j \rightarrow k} [c \cdot U_i [x_] U_j []] := c U_k [x];$

$m_{i,j \rightarrow k} [c \cdot U_i [] U_j [y_]] := c U_k [y];$

$m_{i,j \rightarrow k} [c \cdot U_i [xx_ , x_] U_j [y_ , yy_]] := \text{If}[x \leq y,$
 $c U_k [xx, x, y, yy],$

$((U_i [xx] (U_j [y, x] + UU_j [B[x, y]]) // \text{Expand} // m_{i,j \rightarrow i}) U_j [yy] // \text{Expand} // m_{i,j \rightarrow k}) c // \text{USimp}$
 $];$