Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	${C = \hat{C}}$
4	$A \to \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix}, B \to \begin{pmatrix} B_T \\ B_B \end{pmatrix}, C \to \begin{pmatrix} C_T \\ C_B \end{pmatrix}$ where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows
2	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \right\} $
3	while $m(A_{BR}) < m(A)$ do
2,3	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land m(A_{BR}) < m(A) \right\} $
5a	Determine block size b $ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{array}\right) \rightarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ A_{10} & A_{11} & A_{12} \\ \hline A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ B_B \end{array}\right) \rightarrow \left(\begin{array}{c} B_0 \\ B_1 \\ \hline B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \rightarrow \left(\begin{array}{c} C_0 \\ C_1 \\ \hline C_2 \end{array}\right) $ where A_{11} is $b \times b$, B_1 has b rows, C_1 has b rows
6	$ \left\{ \begin{array}{c} \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} = \begin{pmatrix} & \widehat{C}_0 \\ & \widehat{C}_1 \\ & A_{22}B_2 + \widehat{C}_2 \end{pmatrix} \right. $
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $C_1 := A_{10}B_0 + A_{11}B_1 + A_{21}^T B_1 + C_1$ $C_2 := A_{20}B_0 + A_{21}B_1 + A_{22}B_2 + C_2$
7	$ \begin{cases} \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} = \begin{pmatrix} \hat{C}_0 \\ A_{11}B_1 + A_{21}^T B_2 + \hat{C}_1 \\ A_{21}B_1 + A_{22}B_2 + \hat{C}_2 \end{pmatrix} $
5b	$ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ \hline A_{BL} & A_{BR} \end{array}\right) \leftarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ \hline A_{10} & A_{11} & A_{12} \\ A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ B_B \end{array}\right) \leftarrow \left(\begin{array}{c} B_0 \\ B_1 \\ B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \leftarrow \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \end{array}\right) $
2	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \end{array} \right.$
	endwhile
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg (m(A_{BR}) < m(A)) \right\}$
1b	$\{C = AB + \widehat{C} $

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	{
4	where
2	
3	while do
2,3	
5a	Determine block size b where
6	
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $A_{10}B_0 +$ $A_{20}B_0 +$ $A_{22}B_2 +$
7	
5b	
2	
	endwhile
2,3	$\bigg \bigg\{ \hspace{1cm} \wedge \neg (\hspace{1cm}) \hspace{1cm} \bigg \hspace{1cm}$
1b	{

Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular pa	10
$\{C=\widehat{C}$	}
where	
while do	
	$\left. \right\}$
Determine block size b	
where	
$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$	
$A_{10}B_0+$ $A_{22}B_2+$	
endwhile	
\neg ()	
$\{C = AB + \widehat{C}$	}
	where $ \begin{cases} & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & &$

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	$\{C = \widehat{C}\}$
4	where
2	$\left\{ \left(rac{C_T}{C_B} ight) = \left(rac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} ight)$
3	while do
2,3	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \wedge \end{array} \right.$
	Determine block size b
5a	
	where
6	
	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$
8	$A_{10}B_0 + A_{20}B_0 + A_{22}B_2 + A_{20}B_0 + A_{2$
7	{
5b	
2	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \end{array} \right.$
	endwhile
2,3	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg () \right\} $
1b	$\{C = AB + \widehat{C} $

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	${C = \widehat{C}}$
4	where
2	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \right\}$
3	while $m(A_{BR}) < m(A)$ do
2,3	while $m(A_{BR}) < m(A)$ do $ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land m(A_{BR}) < m(A) \right\} $
	Determine block size b
5a	
	where
6	
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $A_{10}B_0 +$ $A_{20}B_0 + A_{22}B_2 +$
7	
5b	
2	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \end{array} \right\}$
	endwhile
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg (m(A_{BR}) < m(A)) \right\}$
1b	$\left \left\{ C = AB + \widehat{C} \right\} \right $

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	$\{C = \widehat{C}$
4	$A \to \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix}, B \to \begin{pmatrix} B_T \\ B_B \end{pmatrix}, C \to \begin{pmatrix} C_T \\ C_B \end{pmatrix}$ where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows
2	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \right\} $ while $m(A_B) \in m(A)$ defined as $A_{BR}B_B + \widehat{C}_B$
3	while $m(A_{BR}) < m(A)$ do
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land m(A_{BR}) < m(A) \right\}$
	Determine block size b
5a	
Ja	
	where
6	
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$
0	$A_{10}B_0 + A_{20}B_0 + A_{22}B_2 +$
7	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
5b	
2	$\int C_T - \left(\widehat{C}_T \right)$
	$\left\langle \begin{array}{c} \overline{C_B} \end{array} \right\rangle = \left\langle \overline{A_{BR}B_B + \widehat{C}_B} \right\rangle$
	endwhile
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg (m(A_{BR}) < m(A)) \right\}$
1b	$\{C = AB + \widehat{C} $

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	$\{C = \widehat{C}$
4	$A \to \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix}, B \to \begin{pmatrix} B_T \\ B_B \end{pmatrix}, C \to \begin{pmatrix} C_T \\ C_B \end{pmatrix}$ where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows
2	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \right\}$
3	while $m(A_{BR}) < m(A)$ do
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land m(A_{BR}) < m(A) \right\}$
5a	Determine block size b $ \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix} \rightarrow \begin{pmatrix} A_{00} & A_{01} & A_{02} \\ A_{10} & A_{11} & A_{12} \\ A_{20} & A_{21} & A_{22} \end{pmatrix}, \begin{pmatrix} B_T \\ B_B \end{pmatrix} \rightarrow \begin{pmatrix} B_0 \\ B_1 \\ B_2 \end{pmatrix}, \begin{pmatrix} C_T \\ C_B \end{pmatrix} \rightarrow \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} $ where A_{11} is $b \times b$, B_1 has b rows, C_1 has b rows
6	
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $A_{10}B_0 +$ $A_{20}B_0 + A_{22}B_2 +$
7	
5b	$ig(egin{array}{c c} A_{BL} & A_{BR} & A_{20} & A_{21} & A_{22} \ \end{array} ig) ig(egin{array}{c c} B_B & A_{22} & A_{22} \ \end{array} ig) ig(B_2 & A_{21} & A_{22} \ \end{array} ig)$
2	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \end{array} \right\}$
	endwhile
2,3	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg (m(A_{BR}) < m(A)) \right\} $
1b	$\{C = AB + \widehat{C} $

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	$\{C = \widehat{C}\}$
4	$A \to \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix}, B \to \begin{pmatrix} B_T \\ B_B \end{pmatrix}, C \to \begin{pmatrix} C_T \\ C_B \end{pmatrix}$ where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows
2	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \right\}$
3	while $m(A_{BR}) < m(A)$ do
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land m(A_{BR}) < m(A) \right\}$
5a	Determine block size b $ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{array}\right) \rightarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ A_{10} & A_{11} & A_{12} \\ \hline A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ B_B \end{array}\right) \rightarrow \left(\begin{array}{c} B_0 \\ B_1 \\ \hline B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \rightarrow \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \end{array}\right) $ where A_{11} is $b \times b$, B_1 has b rows, C_1 has b rows
6	$ \left\{ \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} = \begin{pmatrix} \widehat{C}_0 \\ \widehat{C}_1 \\ A_{22}B_2 + \widehat{C}_2 \end{pmatrix} $
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $A_{10}B_0 +$ $A_{20}B_0 + A_{22}B_2 +$
7	
5b	$ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ \hline A_{BL} & A_{BR} \end{array}\right) \leftarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ \hline A_{10} & A_{11} & A_{12} \\ A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ \hline B_B \end{array}\right) \leftarrow \left(\begin{array}{c} B_0 \\ B_1 \\ B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \leftarrow \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \end{array}\right) $
2	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \end{array} \right\}$
	endwhile
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg (m(A_{BR}) < m(A)) \right\}$
1b	$\{C = AB + \widehat{C} $

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	$\{C = \widehat{C}\}$
4	$A \rightarrow \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix}, B \rightarrow \begin{pmatrix} B_T \\ B_B \end{pmatrix}, C \rightarrow \begin{pmatrix} C_T \\ C_B \end{pmatrix}$ where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows
2	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR} B_B + \widehat{C}_B} \right) $
3	while $m(A_{BR}) < m(A)$ do
2,3	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land m(A_{BR}) < m(A) \right\}$
5a	Determine block size b $ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{array}\right) \rightarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ A_{10} & A_{11} & A_{12} \\ \hline A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ B_B \end{array}\right) \rightarrow \left(\begin{array}{c} B_0 \\ B_1 \\ \hline B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \rightarrow \left(\begin{array}{c} C_1 \\ C_2 \end{array}\right) $ where A_{11} is $b \times b$, B_1 has b rows, C_1 has b rows
6	$ \left\{ \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} = \begin{pmatrix} & \widehat{C}_0 \\ & \widehat{C}_1 \\ & A_{22}B_2 + \widehat{C}_2 \end{pmatrix} $
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $A_{10}B_0 +$ $A_{20}B_0 + A_{22}B_2 +$
7	$ \left\{ \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} = \begin{pmatrix} & \widehat{C}_0 \\ A_{11}B_1 + A_{21}^T B_2 + \widehat{C}_1 \\ A_{21}B_1 + A_{22}B_2 + \widehat{C}_2 \end{pmatrix} $
5b	$ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ \hline A_{BL} & A_{BR} \end{array}\right) \leftarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ \hline A_{10} & A_{11} & A_{12} \\ A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ B_B \end{array}\right) \leftarrow \left(\begin{array}{c} B_0 \\ B_1 \\ B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \leftarrow \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \end{array}\right) $
2	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \end{array} \right\}$
	endwhile
2,3	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg (m(A_{BR}) < m(A)) \right\} $
1b	$\{C = AB + \widehat{C} $

Step	Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
1a	$\{C = \widehat{C}$
4	$A \to \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix}, B \to \begin{pmatrix} B_T \\ B_B \end{pmatrix}, C \to \begin{pmatrix} C_T \\ C_B \end{pmatrix}$ where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows
2	$\left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \right\}$
3	while $m(A_{BR}) < m(A)$ do
2,3	$ \left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \wedge m(A_{BR}) < m(A) \end{array} \right\} $
5a	Determine block size b $ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{array}\right) \rightarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ A_{10} & A_{11} & A_{12} \\ \hline A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ B_B \end{array}\right) \rightarrow \left(\begin{array}{c} B_0 \\ B_1 \\ \hline B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \rightarrow \left(\begin{array}{c} C_1 \\ C_2 \end{array}\right) $ where A_{11} is $b \times b$, B_1 has b rows, C_1 has b rows
6	$ \left\{ \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} = \begin{pmatrix} & \widehat{C}_0 \\ & \widehat{C}_1 \\ & A_{22}B_2 + \widehat{C}_2 \end{pmatrix} $
8	$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $C_1 := A_{10}B_0 + A_{11}B_1 + A_{21}^T B_1 + C_1$ $C_2 := A_{20}B_0 + A_{21}B_1 + A_{22}B_2 + C_2$
7	$ \begin{cases} \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} = \begin{pmatrix} \hat{C}_0 \\ A_{11}B_1 + A_{21}^T B_2 + \hat{C}_1 \\ A_{21}B_1 + A_{22}B_2 + \hat{C}_2 \end{pmatrix} $
5b	$ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ \hline A_{BL} & A_{BR} \end{array}\right) \leftarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ \hline A_{10} & A_{11} & A_{12} \\ A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ \hline B_B \end{array}\right) \leftarrow \left(\begin{array}{c} B_0 \\ B_1 \\ B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \leftarrow \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \end{array}\right) $
2	$\left\{ \begin{array}{c} \left(\frac{C_T}{C_B}\right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B}\right) \end{array} \right\}$
	endwhile
2,3	$ \left\{ \left(\frac{C_T}{C_B} \right) = \left(\frac{\widehat{C}_T}{A_{BR}B_B + \widehat{C}_B} \right) \land \neg (m(A_{BR}) < m(A)) \right\} $
1b	$\{C = AB + \widehat{C} $

Algorithm: $C := AB + C$ where A is symmetric and stored in the lower triangular part
$A \to \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix}, B \to \begin{pmatrix} B_T \\ B_B \end{pmatrix}, C \to \begin{pmatrix} C_T \\ C_B \end{pmatrix}$ where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows
while $m(A_{BR}) < m(A)$ do
Determine block size b $ \begin{pmatrix} A_{TL} & A_{TR} \\ A_{BL} & A_{BR} \end{pmatrix} \rightarrow \begin{pmatrix} A_{00} & A_{01} & A_{02} \\ A_{10} & A_{11} & A_{12} \\ A_{20} & A_{21} & A_{22} \end{pmatrix}, \begin{pmatrix} B_T \\ B_B \end{pmatrix} \rightarrow \begin{pmatrix} B_0 \\ B_1 \\ B_2 \end{pmatrix}, \begin{pmatrix} C_T \\ C_B \end{pmatrix} \rightarrow \begin{pmatrix} C_0 \\ C_1 \\ C_2 \end{pmatrix} $ where A_{11} is $b \times b$, B_1 has b rows, C_1 has b rows
$C_0 := A_{00}B_0 + A_{10}^T B_1 + A_{20}^T B_2 + C_0$ $C_1 := A_{10}B_0 + A_{11}B_1 + A_{21}^T B_1 + C_1$ $C_2 := A_{20}B_0 + A_{21}B_1 + A_{22}B_2 + C_2$
$ \left(\begin{array}{c c} A_{TL} & A_{TR} \\ \hline A_{BL} & A_{BR} \end{array}\right) \leftarrow \left(\begin{array}{c c} A_{00} & A_{01} & A_{02} \\ \hline A_{10} & A_{11} & A_{12} \\ A_{20} & A_{21} & A_{22} \end{array}\right), \left(\begin{array}{c} B_T \\ B_B \end{array}\right) \leftarrow \left(\begin{array}{c} B_0 \\ B_1 \\ B_2 \end{array}\right), \left(\begin{array}{c} C_T \\ C_B \end{array}\right) \leftarrow \left(\begin{array}{c} C_0 \\ C_1 \\ C_2 \end{array}\right) $
endwhile

Algorithm: C := AB + C where A is symmetric and stored in the lower triangular part

$$A o \left(\begin{array}{c|c} A_{TL} & A_{TR} \\ \hline A_{BL} & A_{BR} \end{array} \right) , B o \left(\begin{array}{c|c} B_T \\ \hline B_B \end{array} \right) , C o \left(\begin{array}{c|c} C_T \\ \hline C_B \end{array} \right)$$

where A_{BR} is 0×0 , B_B has 0 rows, C_B has 0 rows

while $m(A_{BR}) < m(A)$ do

Determine block size b

$$\left(\begin{array}{c|c}
A_{TL} & A_{TR} \\
\hline
A_{BL} & A_{BR}
\end{array}\right) \to \left(\begin{array}{c|c}
A_{00} & A_{01} & A_{02} \\
A_{10} & A_{11} & A_{12} \\
\hline
A_{20} & A_{21} & A_{22}
\end{array}\right), \left(\begin{array}{c}
B_T \\
B_B
\end{array}\right) \to \left(\begin{array}{c}
B_0 \\
B_1 \\
\hline
B_2
\end{array}\right), \left(\begin{array}{c}
C_T \\
C_B
\end{array}\right) \to \left(\begin{array}{c}
C_0 \\
C_1 \\
\hline
C_2
\end{array}\right)$$

where A_{11} is $b \times b$, B_1 has b rows, C_1 has b rows

$$C_1 := A_{11}B_1 + A_{21}^T B_1 + C_1$$

$$C_2 := A_{21}B_1 + C$$

$$\left(\begin{array}{c|c}
A_{TL} & A_{TR} \\
\hline
A_{BL} & A_{BR}
\end{array}\right) \leftarrow \left(\begin{array}{c|c}
A_{00} & A_{01} & A_{02} \\
\hline
A_{10} & A_{11} & A_{12} \\
A_{20} & A_{21} & A_{22}
\end{array}\right), \left(\begin{array}{c}
B_T \\
B_B
\end{array}\right) \leftarrow \left(\begin{array}{c}
B_0 \\
B_1 \\
B_2
\end{array}\right), \left(\begin{array}{c}
C_T \\
C_B
\end{array}\right) \leftarrow \left(\begin{array}{c}
C_0 \\
C_1 \\
C_2
\end{array}\right)$$

endwhile