Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	$A o \left(\frac{A_T}{A_B}\right), B o \left(\frac{B_T}{B_B}\right), C o \left(\frac{C_{TL}}{C_{BL}}\right)$ where A_T has 0 rows, B_T has 0 rows, C_{TL} is $0 imes 0$
2	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
3	while $m(C_{TL}) < m(C)$ do
2,3	$\left\{ \begin{array}{c c} \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge m(C_{TL}) < m(C) \end{array} \right\}$
5a	Determine block size b $ \left(\frac{A_T}{A_B}\right) \to \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \to \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \mid * \right) \to \left(\frac{C_{00}}{C_{10}} \mid * \right) $ where A_1 has b rows, B_1 has b rows, C_{11} is $b \times b$
6	$ \left\{ \begin{pmatrix} C_{00} & * & * \\ C_{10}^T & C_{11} & * \\ C_{20} & C_{21} & C_{22} \end{pmatrix} = \begin{pmatrix} A_0 B_0^T + B_0 A_0^T + \widehat{C}_{00} & * & * \\ A_1^T B_0^T + \widehat{C}_{10}^T & \widehat{C}_{11} & * \\ A_2 B_0^T + \widehat{C}_{20} & \widehat{C}_{21} & \widehat{C}_{22} \end{pmatrix} $
8	$C_{11} = A_1^T (B_1^T)^T + B_1^T (A_1^T)^T + C_{11}$ $C_{10}^T = B_1^T A_0^T + C_{10}^T$ $C_{20} = A_2 (B_1^T)^T + C_{20}^T$ $C_{21} = A_2 B_0^T + A_1^T B_0^T + C_{20}^T$
7	$ \left\{ \begin{pmatrix} C_{00} & * & * \\ C_{10}^T & C_{11} & * \\ C_{20} & C_{21} & C_{22} \end{pmatrix} = \begin{pmatrix} A_0 B_0^T + B_0 A_0^T + \hat{C}_{00} & * & * \\ A_1 B_0^T + B_1^T A_0^T + \hat{C}_{10}^T & A_1^T (b_1^T)^T + B_1^T (A_1^T)^T + \hat{C}_{11} & * \\ A_2 (b_1^T)^T + A_2 B_0^T + \hat{C}_{20} & A_2 B_0^T + A_1^T B_0^T + \hat{C}_{21} & \hat{C}_{22} \end{pmatrix} \right\} $
5b	$\langle A_0 \rangle \langle B_0 \rangle \langle A_0 \rangle \langle A_$
2	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
	endwhile
2,3	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \land \neg (m(C_{TL}) < m(C)) $
1b	$\{C = AB^T + BA^T + \widehat{C} $ }

Step	Algorithm: $C = AB^T + BA^T + C$
1a	{
4	
	where
2	
3	while do
2,3	
	Determine block size b
-	
5a	
	where
6	{
8	
7	
7	
5b	
90	
2	
	endwhile
2,3	$\left\{ \begin{array}{ccc} & & & \\ & & & \\ & & & \\ \end{array} \right. $
1b	{

Step	Algorithm: $C = AB^T + BA^T + C$
1a	$\{C = \widehat{C}$
4	
	where
2	
3	while do
2,3	
	Determine block size b
5a	
	where
6	
8	
7	J
'	
5b	
9.0	
2	{
	endwhile
2,3	
11	
1b	$\{C = AB^T + BA^T + \widehat{C} $

Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	where
2	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \right\}$
3	while do
2,3	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge \right.$
5a	Determine block size b where
6	
8	
7	
5b	
2	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
	endwhile
2,3	$ \left\{ \left(\frac{C_{TL}}{C_{BL}} \right * \atop C_{BR} \right) = \left(\frac{A_T B_T^T + B_T A_T^T + \widehat{C}_{TL}}{A_B B_T^T + \widehat{C}_{BL}} \right * \atop \widehat{C}_{BR} \right) \land \neg () $
1b	$\{C = AB^T + BA^T + \widehat{C} $ }

Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	where
2	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
3	while $m(C_{TL}) < m(C)$ do
2,3	$\left\{ \begin{array}{c c} \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge m(C_{TL}) < m(C) \end{array} \right\}$
	Determine block size b
5a	
	where
6	
8	
7	
5b	
2	$ \left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) $
	endwhile
2,3	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge \neg (m(C_{TL}) < m(C)) \right\}$
1b	$\{C = AB^T + BA^T + \widehat{C} $ }

Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	$A o \left(\frac{A_T}{A_B}\right), B o \left(\frac{B_T}{B_B}\right), C o \left(\frac{C_{TL}}{C_{BL}}\right)$ where A_T has 0 rows, B_T has 0 rows, C_{TL} is $0 imes 0$
2	$ \left\{ \left(\frac{C_{TL}}{C_{BL}} \middle * \atop C_{BR} \right) = \left(\frac{A_T B_T^T + B_T A_T^T + \widehat{C}_{TL}}{A_B B_T^T + \widehat{C}_{BL}} \middle \widehat{C}_{BR} \right) \right\} $
3	while $m(C_{TL}) < m(C)$ do
2,3	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge m(C_{TL}) < m(C) $
	Determine block size b
5a	
- Ju	
	where
6	
8	
7	
5b	
2	$ \left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) $
	endwhile
2,3	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \land \neg (m(C_{TL}) < m(C)) $
1b	$\{C = AB^T + BA^T + \widehat{C} $ }

Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	$A o \left(\frac{A_T}{A_B}\right), B o \left(\frac{B_T}{B_B}\right), C o \left(\frac{C_{TL}}{C_{BL}}\right)$ where A_T has 0 rows, B_T has 0 rows, C_{TL} is $0 imes 0$
2	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
3	while $m(C_{TL}) < m(C)$ do
2,3	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge m(C_{TL}) < m(C) $
5a	Determine block size b $ \left(\frac{A_T}{A_B}\right) \to \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \to \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \right * \\ C_{BL} C_{BR}\right) \to \left(\frac{C_{00}}{C_{10}} \right * * * \\ C_{20} C_{21} C_{22}\right) $ where A_1 has b rows, B_1 has b rows, C_{11} is $b \times b$
6	
8	
7	
5b	$ \left(\frac{A_T}{A_B}\right) \leftarrow \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \leftarrow \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}}\right) \leftarrow \left(\frac{C_{00}}{C_{BR}}\right) \leftarrow \left(\frac{C_{00}}{C_{10}}\right) \times \left(\frac{C_{TL}}{C_{20}}\right) $
2	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
	endwhile
2,3	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \land \neg (m(C_{TL}) < m(C)) \right\}$
1b	$\{C = AB^T + BA^T + \widehat{C} $ }

Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	$A \to \left(\frac{A_T}{A_B}\right), B \to \left(\frac{B_T}{B_B}\right), C \to \left(\frac{C_{TL}}{C_{BL}}\right)$ where A_T has 0 rows, B_T has 0 rows, C_{TL} is 0×0
2	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
3	while $m(C_{TL}) < m(C)$ do
2,3	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge m(C_{TL}) < m(C) $
	Determine block size b
5a	$\left(\frac{A_T}{A_B}\right) \to \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \to \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \middle * \atop C_{BR}\right) \to \left(\frac{C_{00}}{C_{10}} \middle * \middle * \atop C_{20} \middle C_{21} \middle C_{22}\right)$
	where A_1 has b rows, B_1 has b rows, C_{11} is $b \times b$
6	$ \left\{ \begin{pmatrix} C_{00} & * & * \\ C_{10}^T & C_{11} & * \\ C_{20} & C_{21} & C_{22} \end{pmatrix} = \begin{pmatrix} A_0 B_0^T + B_0 A_0^T + \widehat{C}_{00} & * & * \\ A_1^T B_0^T + \widehat{C}_{10}^T & \widehat{C}_{11} & * \\ A_2 B_0^T + \widehat{C}_{20} & \widehat{C}_{21} & \widehat{C}_{22} \end{pmatrix} $
8	
7	
5b	$ \left(\frac{A_T}{A_B}\right) \leftarrow \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \leftarrow \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \right * \atop C_{BL} C_{BR} \right) \leftarrow \left(\frac{C_{00}}{C_{10}} \right * \atop C_{20} C_{21} C_{22} \right) $
2	$\left\{ \begin{array}{c c} \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \right.$
	endwhile
2,3	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \land \neg (m(C_{TL}) < m(C)) $
1b	$\{C = AB^T + BA^T + \widehat{C} $ }

Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	$A \to \left(\frac{A_T}{A_B}\right), B \to \left(\frac{B_T}{B_B}\right), C \to \left(\frac{C_{TL}}{C_{BL}}\right)$ where A_T has 0 rows, B_T has 0 rows, C_{TL} is 0×0
2	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
3	while $m(C_{TL}) < m(C)$ do
2,3	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \land m(C_{TL}) < m(C) $
	Determine block size b
5a	$ \left(\frac{A_T}{A_B}\right) \to \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \to \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \middle \frac{*}{C_{BR}}\right) \to \left(\frac{C_{00}}{C_{10}^T} \middle \frac{*}{C_{11}} \middle \frac{*}{C_{20}}\right) $
	where A_1 has b rows, B_1 has b rows, C_{11} is $b \times b$
6	$ \left\{ \begin{pmatrix} C_{00} & * & * \\ C_{10}^T & C_{11} & * \\ C_{20} & C_{21} & C_{22} \end{pmatrix} = \begin{pmatrix} A_0 B_0^T + B_0 A_0^T + \widehat{C}_{00} & * & * \\ A_1^T B_0^T + \widehat{C}_{10}^T & \widehat{C}_{11} & * \\ A_2 B_0^T + \widehat{C}_{20} & \widehat{C}_{21} & \widehat{C}_{22} \end{pmatrix} $
8	
7	$ \left\{ \begin{pmatrix} C_{00} & * & * \\ C_{10}^T & C_{11} & * \\ C_{20} & C_{21} & C_{22} \end{pmatrix} = \begin{pmatrix} A_0 B_0^T + B_0 A_0^T + \widehat{C}_{00} & * & * \\ A_1 B_0^T + B_1^T A_0^T + \widehat{C}_{10}^T & A_1^T (b_1^T)^T + B_1^T (A_1^T)^T + \widehat{C}_{11} & * \\ A_2 (b_1^T)^T + A_2 B_0^T + \widehat{C}_{20} & A_2 B_0^T + A_1^T B_0^T + \widehat{C}_{21} & \widehat{C}_{22} \end{pmatrix} \right\} $
5b	$\langle A_0 \rangle \langle B_0 \rangle \langle A_0 \rangle \langle A_$
2	$ \left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) $
	endwhile
2,3	$ \left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \land \neg (m(C_{TL}) < m(C)) \right\} $
1b	$\left\{ C = AB^T + BA^T + \widehat{C} \right\}$

Step	Algorithm: $C = AB^T + BA^T + C$
1a	${C = \widehat{C}}$
4	$A o \left(\frac{A_T}{A_B}\right), B o \left(\frac{B_T}{B_B}\right), C o \left(\frac{C_{TL}}{C_{BL}}\right)$ where A_T has 0 rows, B_T has 0 rows, C_{TL} is $0 imes 0$
2	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
3	while $m(C_{TL}) < m(C)$ do
2,3	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \wedge m(C_{TL}) < m(C) $
	Determine block size b
5a	$\left(\frac{A_T}{A_B}\right) \to \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \to \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \middle * \atop C_{BR}\right) \to \left(\frac{C_{00}}{C_{10}} \middle * \middle * \atop C_{20} \middle C_{21} \middle C_{22}\right)$
	where A_1 has b rows, B_1 has b rows, C_{11} is $b \times b$
6	$ \left\{ \begin{pmatrix} C_{00} & * & * \\ C_{10}^T & C_{11} & * \\ C_{20} & C_{21} & C_{22} \end{pmatrix} = \begin{pmatrix} A_0 B_0^T + B_0 A_0^T + \widehat{C}_{00} & * & * \\ A_1^T B_0^T + \widehat{C}_{10}^T & \widehat{C}_{11} & * \\ A_2 B_0^T + \widehat{C}_{20} & \widehat{C}_{21} & \widehat{C}_{22} \end{pmatrix} $
	$C_{11} = A_1^T (B_1^T)^T + B_1^T (A_1^T)^T + C_{11}$
8	$C_{10}^T = B_1^T A_0^T + C_{10}^T$
	$C_{20} = A_2 (B_1^T)^T + C_{20}^T$
	$C_{21} = A_2 B_0^T + A_1^T B_0^T + C_{20}^T$
7	$ \left\{ \begin{pmatrix} C_{00} & * & * \\ C_{10}^T & C_{11} & * \\ C_{20} & C_{21} & C_{22} \end{pmatrix} = \begin{pmatrix} A_0 B_0^T + B_0 A_0^T + \widehat{C}_{00} & * & * \\ A_1 B_0^T + B_1^T A_0^T + \widehat{C}_{10}^T & A_1^T (b_1^T)^T + B_1^T (A_1^T)^T + \widehat{C}_{11} & * \\ A_2 (b_1^T)^T + A_2 B_0^T + \widehat{C}_{20} & A_2 B_0^T + A_1^T B_0^T + \widehat{C}_{21} & \widehat{C}_{22} \end{pmatrix} \right\} $
5b	$\left(\frac{A_T}{A_B}\right) \leftarrow \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \leftarrow \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}}\right) \leftarrow \left(\frac{C_{00}}{C_{RR}}\right) \leftarrow \left(\frac{C_{00}}{C_{10}}\right) \times \left(\frac{C_{TL}}{C_{20}}\right)$
2	$\left\{ \begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right)$
	endwhile
2,3	$\left\{ \left(\begin{array}{c c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array} \right) = \left(\begin{array}{c c} A_T B_T^T + B_T A_T^T + \widehat{C}_{TL} & * \\ \hline A_B B_T^T + \widehat{C}_{BL} & \widehat{C}_{BR} \end{array} \right) \land \neg (m(C_{TL}) < m(C)) $
1b	$\{C = AB^T + BA^T + \widehat{C} $

Algorithm: $C = AB^T + BA^T + C$
$A \to \left(\frac{A_T}{A_B}\right), B \to \left(\frac{B_T}{B_B}\right), C \to \left(\frac{C_{TL}}{C_{BL}}\right)$ where A_T has 0 rows, B_T has 0 rows, C_{TL} is 0×0
while $m(C_{TL}) < m(C)$ do
Determine block size b $ \left(\frac{A_T}{A_B}\right) \to \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \to \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \mid * \atop C_{BL} \mid C_{BR}\right) \to \left(\frac{C_{00}}{C_{10}} \mid * \atop C_{11} \mid * \atop C_{20} \mid C_{21} \mid C_{22}\right) $ where A_1 has b rows, B_1 has b rows, C_{11} is $b \times b$
$C_{11} = A_1^T (B_1^T)^T + B_1^T (A_1^T)^T + C_{11}$ $C_{10}^T = B_1^T A_0^T + C_{10}^T$ $C_{20} = A_2 (B_1^T)^T + C_{20}^T$ $C_{21} = A_2 B_0^T + A_1^T B_0^T + C_{20}^T$
$ \left(\frac{A_T}{A_B}\right) \leftarrow \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \leftarrow \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}}\right) \leftarrow \left(\frac{C_{00}}{C_{RR}}\right) \leftarrow \left(\frac{C_{00}}{C_{10}}\right) \times \left(\frac{C_{TL}}{C_{20}}\right) $
endwhile

Algorithm: $C = AB^T + BA^T + C$

$$A o \left(\frac{A_T}{A_B}\right), B o \left(\frac{B_T}{B_B}\right), C o \left(\frac{C_{TL}}{C_{BL}}\right)$$

where A_T has 0 rows, B_T has 0 rows, C_{TL} is 0×0

while $m(C_{TL}) < m(C)$ do

Determine block size b

$$\left(\frac{A_T}{A_B}\right) \to \left(\frac{A_0}{A_1^T}\right), \left(\frac{B_T}{B_B}\right) \to \left(\frac{B_0}{B_1^T}\right), \left(\frac{C_{TL}}{C_{BL}} \right| * \atop C_{BL} C_{BR}\right) \to \left(\frac{C_{00}}{C_{10}} \right| * \underset{C_{20}}{*} \times \underbrace{C_{21}} C_{22}\right)$$

where A_1 has b rows, B_1 has b rows, C_{11} is $b \times b$

$$C_{11} = A_1^T (B_1^T)^T + B_1^T (A_1^T)^T + C_{11}$$

$$C_{10}^T = B_1^T A_0^T + C_{10}^T$$

$$C_{20} = A_2(B_1^T)^T + C_{20}^T$$

$$C_{21} = A_2 B_0^T + A_1^T B_0^T + C_{20}^T$$

$$\left(\begin{array}{c} A_{T} \\ \hline A_{B} \end{array}\right) \leftarrow \left(\begin{array}{c} A_{0} \\ A_{1}^{T} \\ \hline A_{2} \end{array}\right), \left(\begin{array}{c} B_{T} \\ \hline B_{B} \end{array}\right) \leftarrow \left(\begin{array}{c} B_{0} \\ B_{1}^{T} \\ \hline B_{2} \end{array}\right), \left(\begin{array}{c|c} C_{TL} & * \\ \hline C_{BL} & C_{BR} \end{array}\right) \leftarrow \left(\begin{array}{c|c} C_{00} & * & * \\ \hline C_{10} & C_{11} & * \\ \hline C_{20} & C_{21} & C_{22} \end{array}\right)$$

endwhile