

Blocked matrix-matrix multiplication

<pre> for i := 0, ..., m - 1 for j := 0, ..., n - 1 for p := 0, ..., k - 1 $\gamma_{i,j} := \alpha_{i,p} \beta_{p,j} + \gamma_{i,j}$ end end $\tilde{c}_i^T := \tilde{a}_i^T B + \tilde{c}_i^T$ end </pre>	$m_b = \square, n_b = \square, \text{ and } k_b = \square:$ $\begin{pmatrix} \tilde{c}_0^T \\ \vdots \\ \tilde{c}_{m-1}^T \end{pmatrix} + := \begin{pmatrix} \tilde{a}_0^T \\ \vdots \\ \tilde{a}_{m-1}^T \end{pmatrix} B$
<pre> for i := 0, ..., m - 1 for p := 0, ..., k - 1 for j := 0, ..., n - 1 $\gamma_{i,j} := \alpha_{i,p} \beta_{p,j} + \gamma_{i,j}$ end end $\tilde{c}_i^T := \tilde{a}_i^T B + \tilde{c}_i^T$ end </pre>	$m_b = \square, n_b = \square, \text{ and } k_b = \square:$ $\begin{pmatrix} \tilde{c}_0^T \\ \vdots \\ \tilde{c}_{m-1}^T \end{pmatrix} + := \begin{pmatrix} \tilde{a}_0^T \\ \vdots \\ \tilde{a}_{m-1}^T \end{pmatrix} B$
<pre> for j := 0, ..., n - 1 for i := 0, ..., m - 1 for p := 0, ..., k - 1 $\gamma_{i,j} := \alpha_{i,p} \beta_{p,j} + \gamma_{i,j}$ end end $c_j := A b_j + c_j$ end </pre>	$m_b = \square, n_b = \square, \text{ and } k_b = \square:$ $(c_0 \mid \cdots \mid c_{n-1}) + := A (b_0 \mid \cdots \mid b_{n-1})$
<pre> for j := 0, ..., n - 1 for p := 0, ..., k - 1 for i := 0, ..., m - 1 $\gamma_{i,j} := \alpha_{i,p} \beta_{p,j} + \gamma_{i,j}$ end end $c_j := A b_j + c_j$ end </pre>	$m_b = \square, n_b = \square, \text{ and } k_b = \square:$ $(c_0 \mid \cdots \mid c_{n-1}) + := A (b_0 \mid \cdots \mid b_{n-1})$
<pre> for p := 0, ..., k - 1 for i := 0, ..., m - 1 for j := 0, ..., n - 1 $\gamma_{i,j} := \alpha_{i,p} \beta_{p,j} + \gamma_{i,j}$ end end $C := C + a_p \tilde{b}_p^T$ end </pre>	$m_b = \square, n_b = \square, \text{ and } k_b = \square:$ $C + := (a_0 \mid \cdots \mid a_{k-1}) \begin{pmatrix} \tilde{b}_0^T \\ \vdots \\ \tilde{b}_{k-1}^T \end{pmatrix}$
<pre> for p := 0, ..., k - 1 for j := 0, ..., n - 1 for i := 0, ..., m - 1 $\gamma_{i,j} := \alpha_{i,p} \beta_{p,j} + \gamma_{i,j}$ end end $C := C + a_p \tilde{b}_p^T$ end </pre>	$m_b = \square, n_b = \square, \text{ and } k_b = \square:$ $C + := (a_0 \mid \cdots \mid a_{k-1}) \begin{pmatrix} \tilde{b}_0^T \\ \vdots \\ \tilde{b}_{k-1}^T \end{pmatrix}$