

A, B, C, D, E, F $(N \times N)$ square matrix
 G, H, I $(N \times 1.5N)$ rectangular matrix
 a, b vector
 α, β, γ constants

Daxpy

$$a = \alpha a + b$$

DotProduct

$$\gamma = a^T b$$

GEMV1

$$b = \alpha Aa + \beta b$$

GMEV2

$$b = \alpha A^T a + \beta b$$

TRMV1

$$a = Aa$$

TRMV2

$$a = A^T a$$

GER1

$$A = \alpha ab^T + A$$

SYR

$$A = \alpha ab^T + \alpha ba^T + A$$

SYMM1

$$C = \alpha AB + \beta C$$

SYMM1Rect

$$I = \alpha GH + \beta I$$

SYMM2

$$C = \alpha A^T B + \beta C$$

SYR2K

$$C = \alpha AB^T + \alpha BA^T + \beta * C$$

SYR2KRect

$$I = \alpha GH^T + \alpha HG^T + \beta I$$

SYRK

$$C = \alpha AA^T$$

SYRKRect

$$I = \alpha GG^T$$

Nestedprod

$$A = BCDEF$$