

Notation

Unbolded x represents a real number, \mathbf{x} represents a vector, and \mathbf{X} represents a matrix. The i th element of a vector \mathbf{x} is denoted as x_i . A bold lower-case number with an index such as \mathbf{x}_j represents a particular row of matrix \mathbf{X} .

Symbol	Description
\mathbf{h}	The implicit feature vector corresponding to a kernel.
$\mathcal{O}(\cdot)$	The big-O asymptotic complexity of an algorithm.
$A \otimes B$	The Kronecker product of matrices A and B .
\mathbf{f}	A function represented as an infinite-dimensional vector.
SE	Squared-exponential kernel, also known as the radial-basis function kernel, or Gaussian kernel.
RQ	Rational-quadratic kernel.
Per	Periodic kernel.
Lin	Linear kernel.
WN	White noise kernel.
C	constant kernel.
$k_1 + k_2$	Addition of kernels, shorthand for: $k_1(x, x') + k_2(x, x')$
$k_1 \times k_2$	Multiplication of kernels, shorthand for: $k_1(x, x') \times k_2(x, x')$