Notation

Throughout this thesis we use Roman letters in place of greek letters wherever possible.

Unbolded x represents a real number, $\mathbf{x}$ represents a vector, and $\mathbf{X}$ represents a matrix. The ith element of a vector $\mathbf{x}$ is denoted as x_i.

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.
$\boldsymbol{f}$	A function represented as an infinite-dimensional vector.
SE	Squared-exponential kernel, also known as the radial-basis function kernel, or Gaussian
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: $k_1(x, x') \times k_2(x, x')$