NOTATIONS IN BRIEF

The following are some national conventions used in this thesis:

 $\int dt$ All integrals without limits imply integration from

 $-\infty$ to ∞ , i.e., $\int_{-\infty}^{\infty} dt$ unless otherwise specified

 $\partial(n)$ It refers to a sequence that is zero always except at n = 1 at :

where it is one

9 Partial differentiation operator with respect to x

 x^* Complex conjugate of x

 x^T Transpose of matrix x

 x^{-1} Inverse of matrix x

|x|Determinant of matrix x

E[.]Expectation operator

Real part of the argument *Re(.)*

Im(.) Imaginary part of the argument

ln(x)Natural logarithm of *x*

 $f_{X,\Theta}(x;\theta)$ The notation expresses the dependency of the pdf of X on

value of unknown parameter θ

Binomial coefficient $\frac{n!}{p!(n-p)!}$: