Chapter G:I

I. Formal Notation

- Mathematical Elements
- Mathematical Environments

Mathematical Elements

Identifiers

Notation	Element
A, B, C, X	matrices, sets
α, β	functions, logical formulas
$\mathcal{C}$	sets of sets or matrices
$x_1, \ldots, x_p$	p scalar (feature) variable
$\mathbf{x} \in X$	(feature) vector in set X
p	$\lvert\mathbf{x}\rvert$, dimension of (feature) vectors
$c(\mathbf{x})$	target concept
k	number of classes or categories in X
n	$\lvert X\rvert$, number of feature vectors in X

Mathematical Environments

Definitions and Theorems

The numbering for Definitions and Theorems is done with a single (combined) counter 'theorem' for both environments. No numbering for Corollary, Lemma, Proof, Proof Sketch.

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\setcounter{theorem}{3}
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Definition 4 (A)
Definition text.

Theorem 5 (B)
Theorem text.

Proof (C)
Proof text.

Definition 6 (D)
Definition text.

Corollary 7 (E)
Corollary text.