Lecture 0 : Notation

STAT205 *Lecturer: Jim Pitman* Scribe: *Charless C. Fowlkes* <fowlkes@eecs.berkeley.edu>

We will use the following notation

$\mathbb{Z}$	the integers
$\mathbb{Q}$	the rational numbers
$\mathbb{R}$	the real numbers
$\mathbb{R}^n$	product of n copies of $\mathbb{R}$
$\mathbb{P}$	probability measure
$\mathbb{E}$	expectation
$\mathbf{1}_X$	indicator of X
$\mathbf{V}ar$	Variance
$\mathcal{B}(\mathbb{R})$	the borel sigma field
$\mathcal{G}, \mathcal{F}, \mathcal{H}$	some other sigma fields
$\mathbf{L}^2$	the space of square integrable functions
$X_n \xrightarrow{a.s.} X$	almost sure convergence
$X_n \xrightarrow{\mathbb{P}} X$	convergence in probability
$X_n \xrightarrow{\mathbf{L}^2} X$	convergence in$\mathbf{L}^2$
$X \perp\!\!\!\perp_A Y$	conditional independence

Definitions will look like

Definition 0.1 *We define one to equal 1*

theorems like

Theorem 0.2 *one and one is 1.*

and proofs

Proof: one and one $= 1 \wedge 1 = 1$ and one $= 1 \wedge 1 = 1$ and one $= 1 \wedge 1 = 1$ and one $= 1 \wedge 1 = 1$ and one $= 1 \wedge 1 = 1$ and one $= 1 \wedge 1 = 1$ ■

with the traditional ■ denoting the end of the proof.