

Averages of Ito Increments

Friday, February 27, 2009
12:17 PM

Homework 2 can be turned in as late as Friday, March 20 without penalty.

No class or office hours on Tuesday, March 17.

Why is $\langle h dW \rangle = 0$?

Under Ito rules, this is *independent*

$$\approx \langle h(X(t)) (W(t+\Delta t) - W(t)) \rangle$$

only depends on $\{W(t')\}_{t' \leq t}$

$W(t+\Delta t) - W(t)$ involves increment over *not overlapping* time interval $[t, t+\Delta t]$

$$\approx \langle h(X(t)) \rangle \langle W(t+\Delta t) - W(t) \rangle$$

$= 0$