



S5 Stochastic Online Analysis

Nickolas Fotopoulos, MIT

For the Stochastic Group

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Things you will hear today

Why online?

What has the stochastic group gained by going online?

What else do we need to do to obtain publishable S5 result?

Motivations (Why)

Preparedness



Fear





Knowledge of Our Data (What)

<http://ldas-jobs.ligo-wa.caltech.edu/~stochastic/s5>

S5 H1L1 Online Stochastic Analysis Results

Written and maintained by: Nick Fotopoulos (nvf@mit.edu)

Current cumulative results as of 2006-03-13 06:21:15 GMT

Single document compilation: [pdf](#)

Individual files:

Figure	Code	Files	Description
-	postoutput_stdout	txt	The postprocessing pipeline's output to stdout
1	runningPointEstimate	png eps dat	The cumulative point estimate with +/- 1.65 σ error bars
2	runningPtEstIntegrand	png eps dat	The integrand of the cumulative point estimate (Ω/σ^2)
3	runningSigma	png eps	The cumulative σ as a function of time
4	ptEstIntegrand_real	png eps dat	The real part of the point estimate integrand
5	ptEstIntegrand_imag	png eps	The imaginary part of the point estimate integrand
6	ptEstIntegrand_abs	png eps	The absolute value of the point estimate integrand
7	ptEstIntegrand_cum	png eps	The point estimate as you accumulate from low to high frequencies
8	sensIntegrand	png eps dat	The sensitivity integrand
9	sensIntegrand_cum	png eps	The sensitivity integrand as you accumulate from low to high frequencies
10	FFTofPtEstIntegrand	png eps dat	The Fourier Transform of the point estimate integrand
11	PanelPlot1	png eps	The effect of relative σ cuts on various sigma and omega plots
12	PanelPlot3	png eps	The effect of relative σ cuts on the sigma distribution
13	PanelPlot4	png eps	Sigma vs. relative σ deviation



Knowledge of Our Code (What)

- Postprocessing woes
 - » Computation bottleneck
 - » Memory bottleneck
- Minor problems in new code
- Matlab woes
 - » Matlab in general
 - » Matlab R14SP2 --> R14SP3



Publishing S5 (What else)

- Online pipeline currently lacks:
 - » Data quality cuts
 - » Future calibration
- We still need to investigate:
 - » Glitches & Sigmas
 - » Large shifts in the point estimate on few-day time-scales
 - » Stationarity cuts



Snapshot

