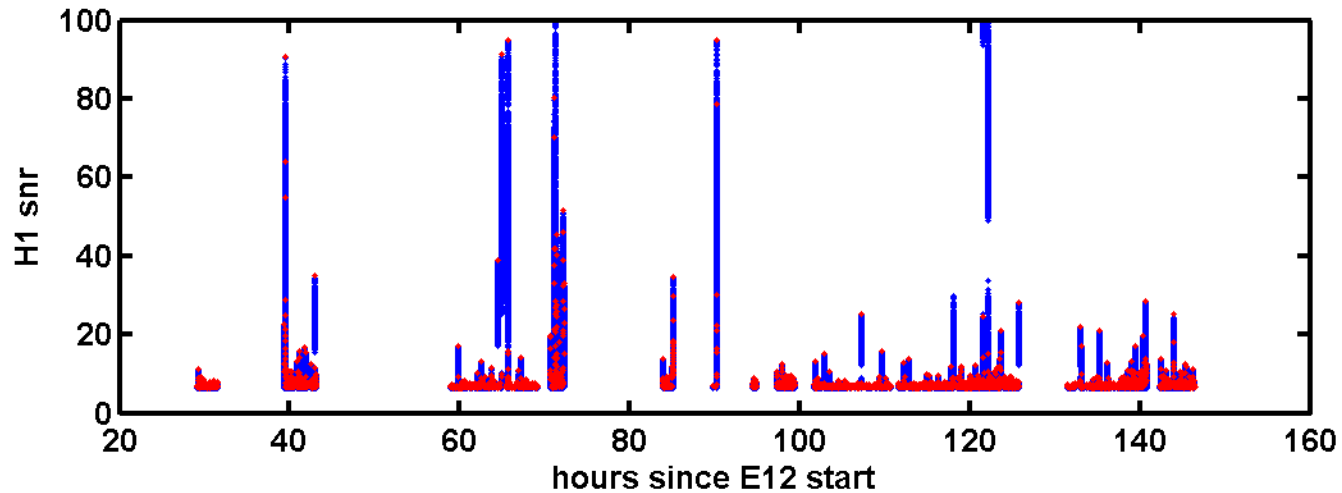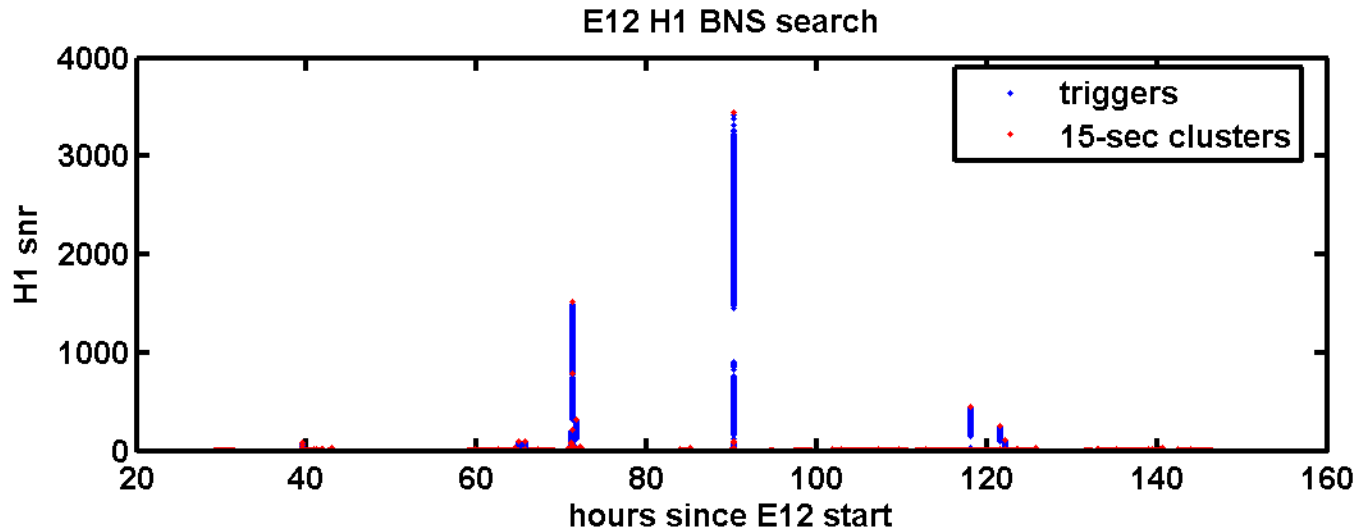# E12 Inspiral Search: Summary

- Search in L1 was behind due to a problem with calibration (what's new?)

- Analysis Duty Cycle as %-age of science data:
  - L1: ~ 30%
  - H1: ~ 75%
  - H2: ~ 63%
  - Failures: calibration, segment lists, data movement, Condor overloads

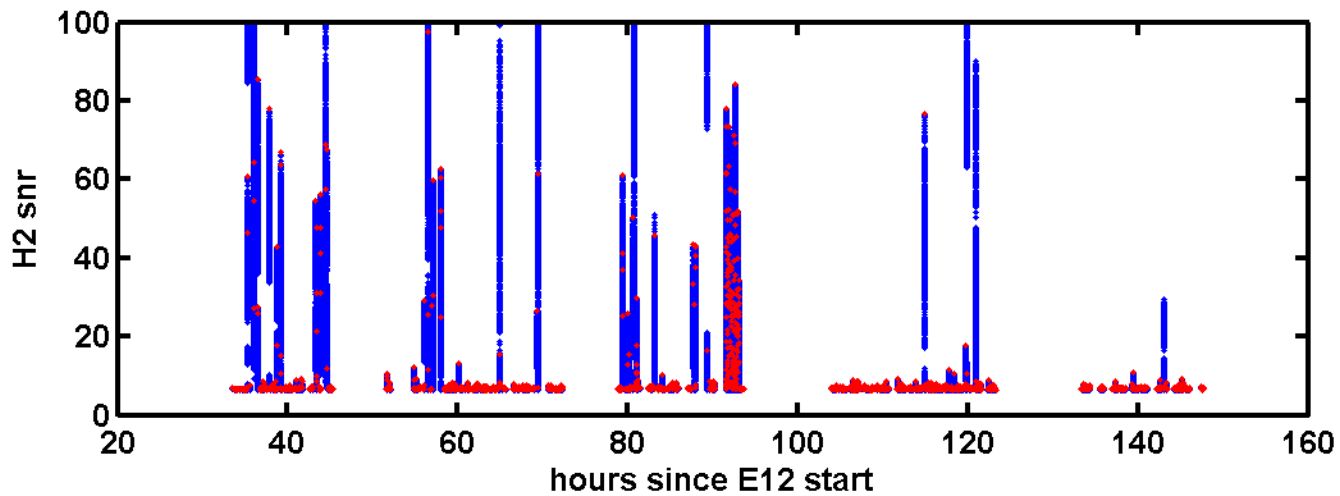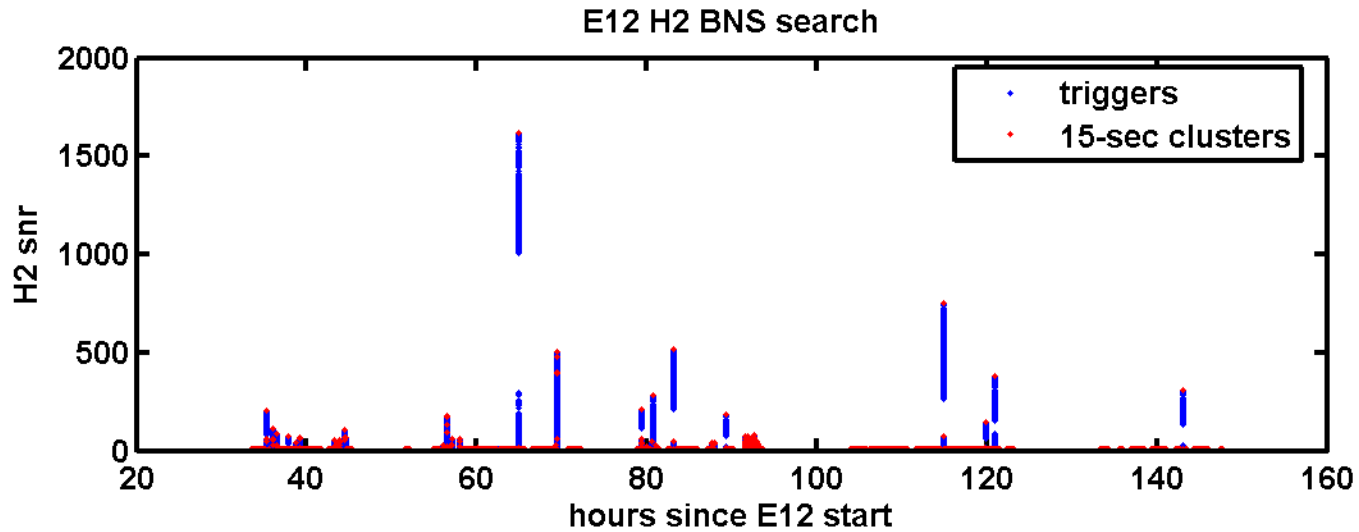- Hardware injections in L1 were satisfactorily recovered (13/14, missing one at 14 Mpc).

H1 E12 BNS triggers

L1 E12 BNS triggers

H2 E12 BNS triggers

eff dist(Mpc)
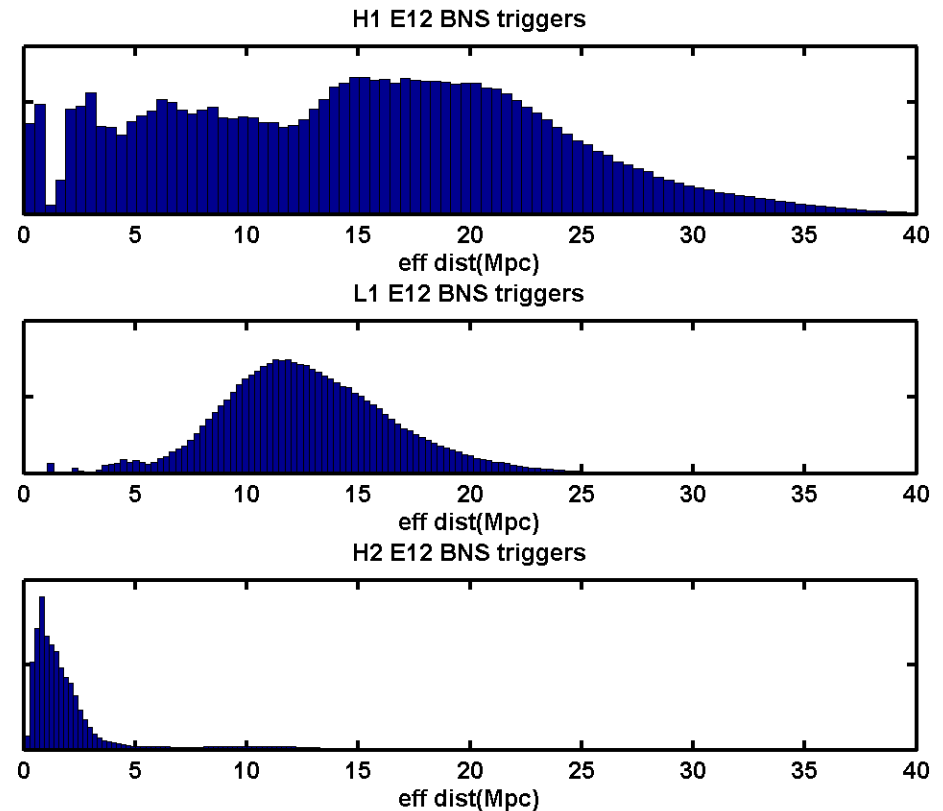
Some numbers

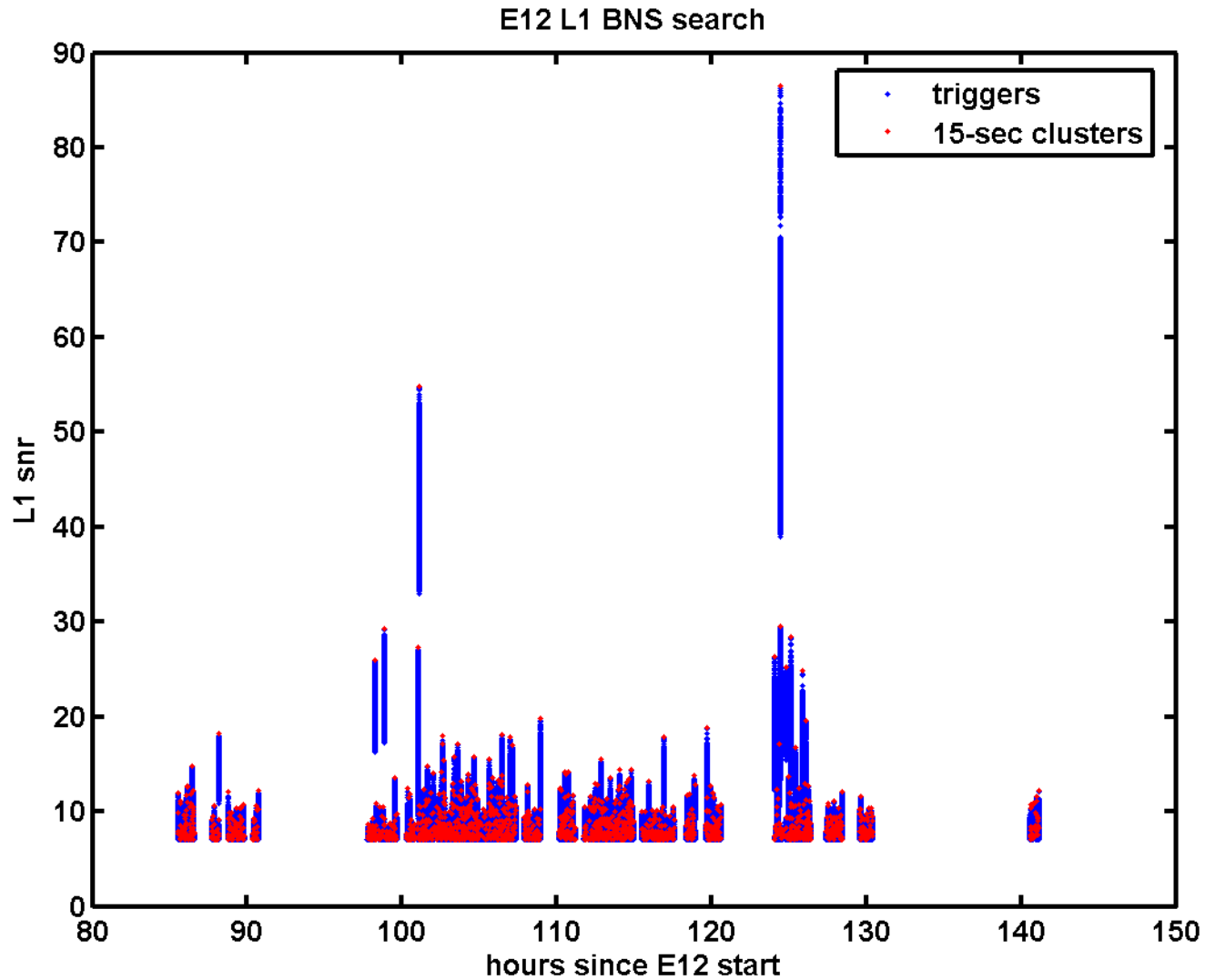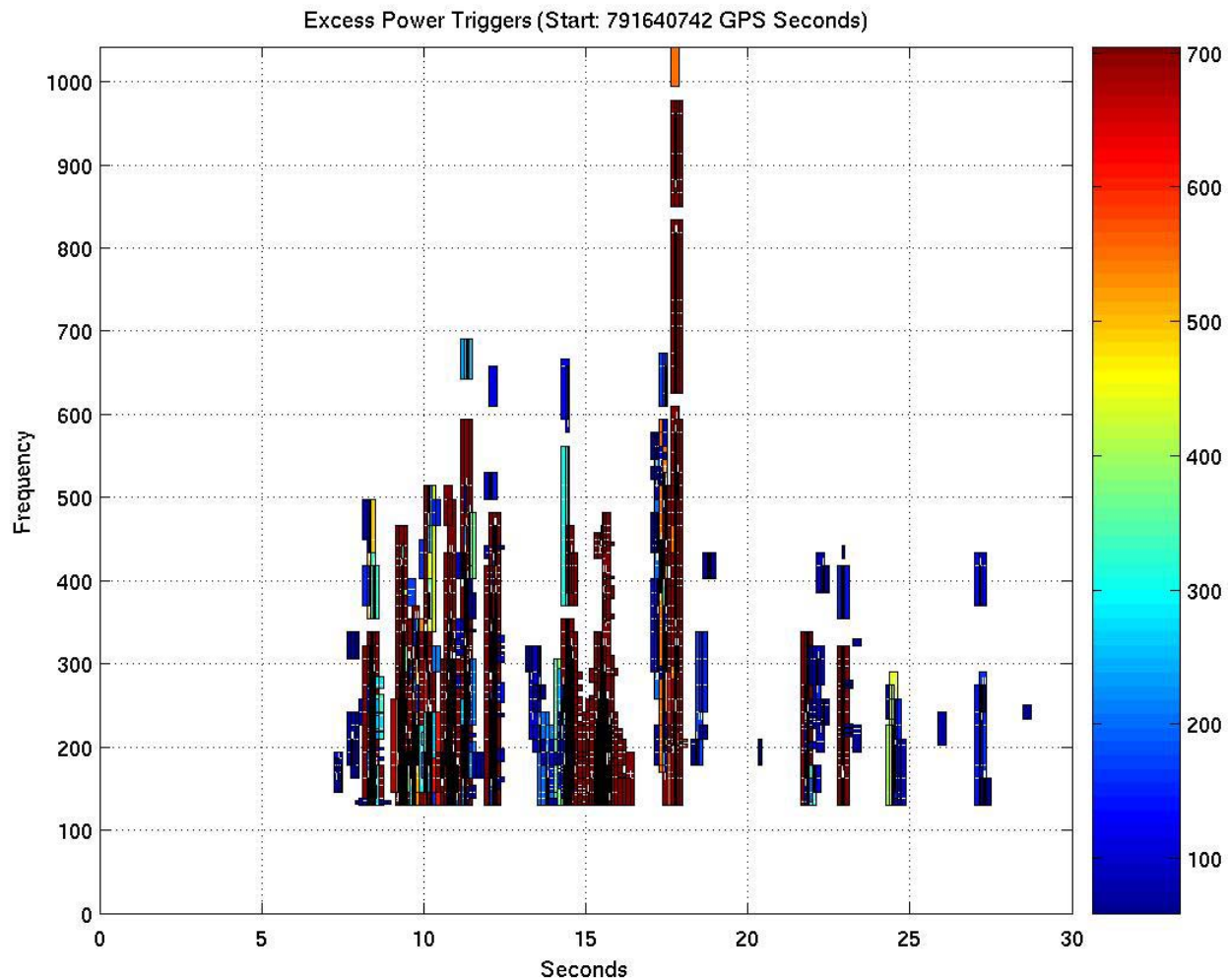|	Hrs searched	Trigger rate (clusters w/ SNR>7)	Max SNR	Number of outliers
L1	28	~0.9/min	86	~10 (0.6%)
H1	67	~0.3/min	3442(!)	~30 (2%)
H2	70	~0.2	1620(!)	~100 (15%)

Some plots: H1

E12 H1 BNS search

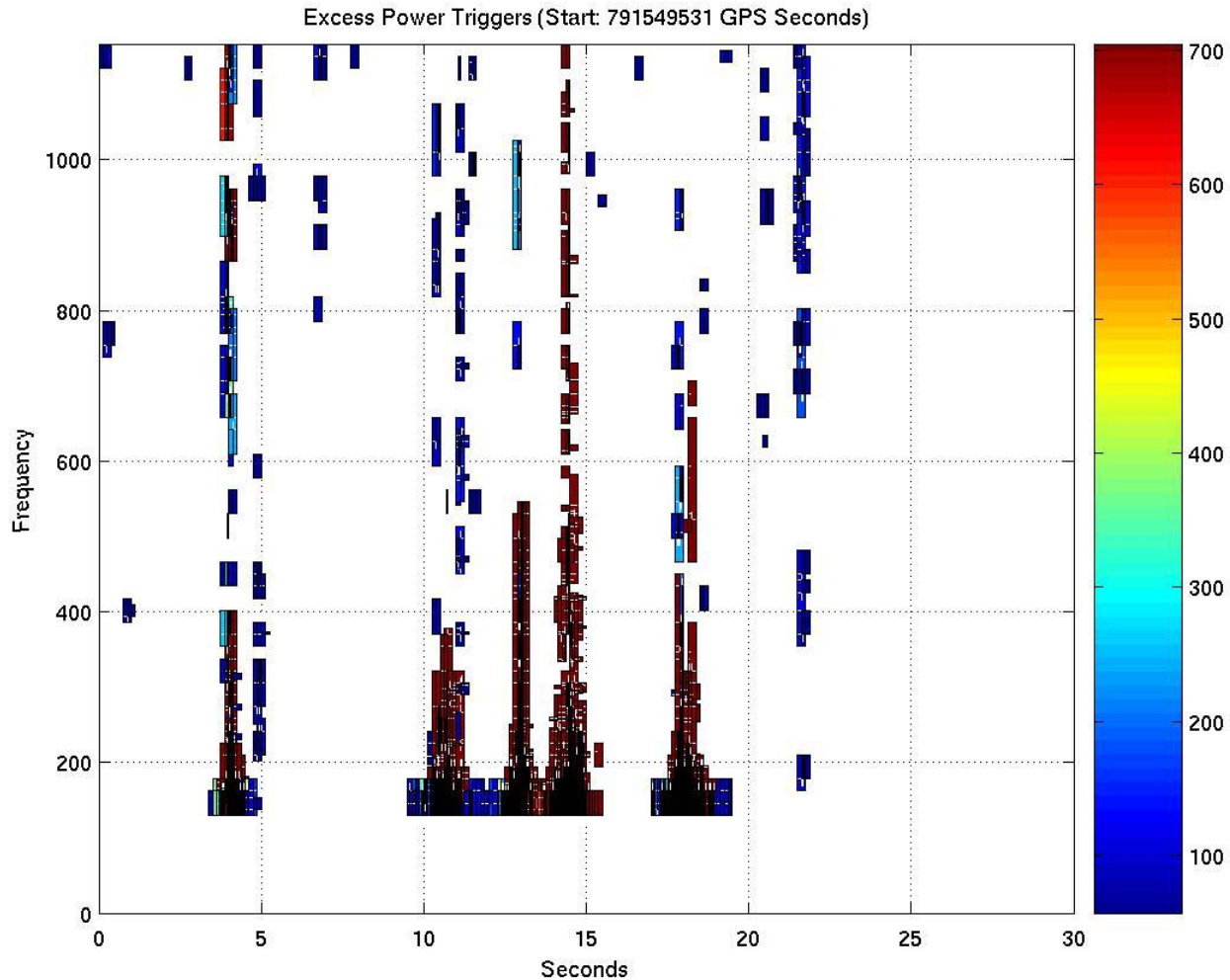# Some plots: H2

E12 H2 BNS search

Some plots: L1

E12 L1 BNS search

Largest SNR Outlier: H1(3442)

Excess Power Triggers (Start: 791640742 GPS Seconds)

Largest SNR Outlier: H2 (1620)

Excess Power Triggers (Start: 791549531 GPS Seconds)

Largest SNR Outlier: L1(86)

Excess Power Triggers (Start: 791763983.3906 GPS Seconds)

Hardware Injections

Excess Power Triggers (Start: 791599805 GPS Seconds)

BNS at 2.5 Mpc.
non-smooth end

Inspiral signal ends at 20.42 seconds

Whoopa caused by abrupt ending of inspiral injection

Correctly detected with inspiral search code with SNR ~ 45 & accurate parameter estimation
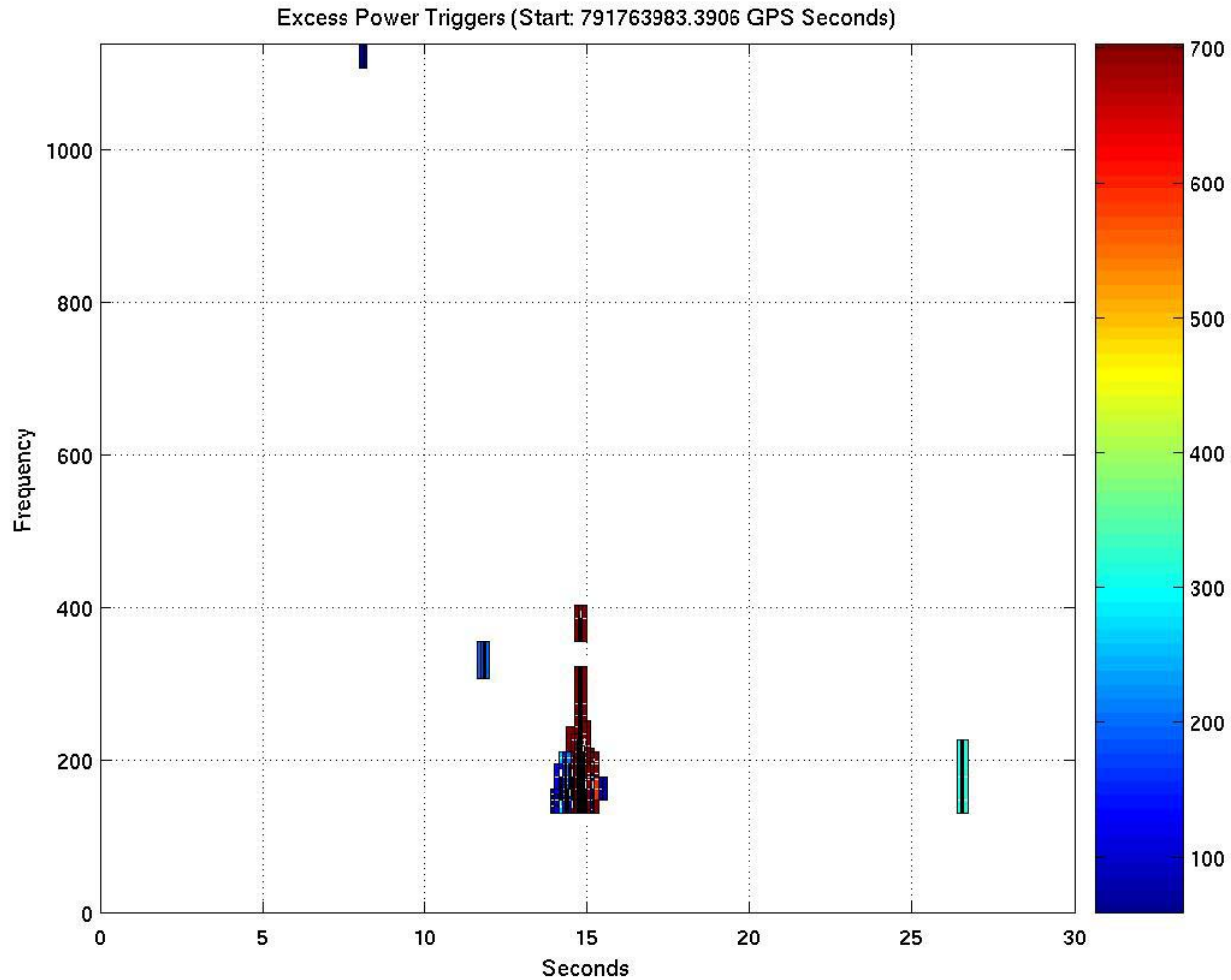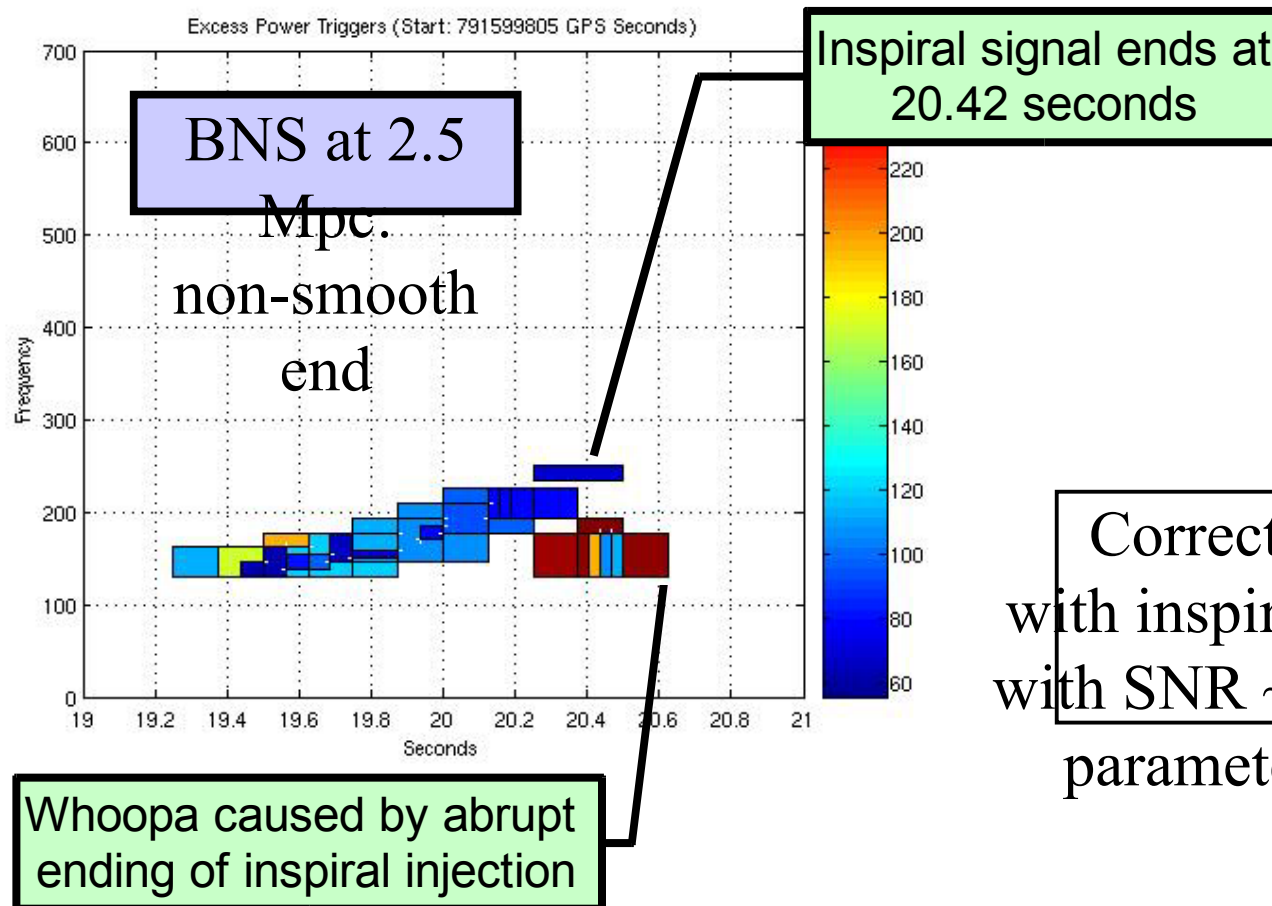
Hardware Injections
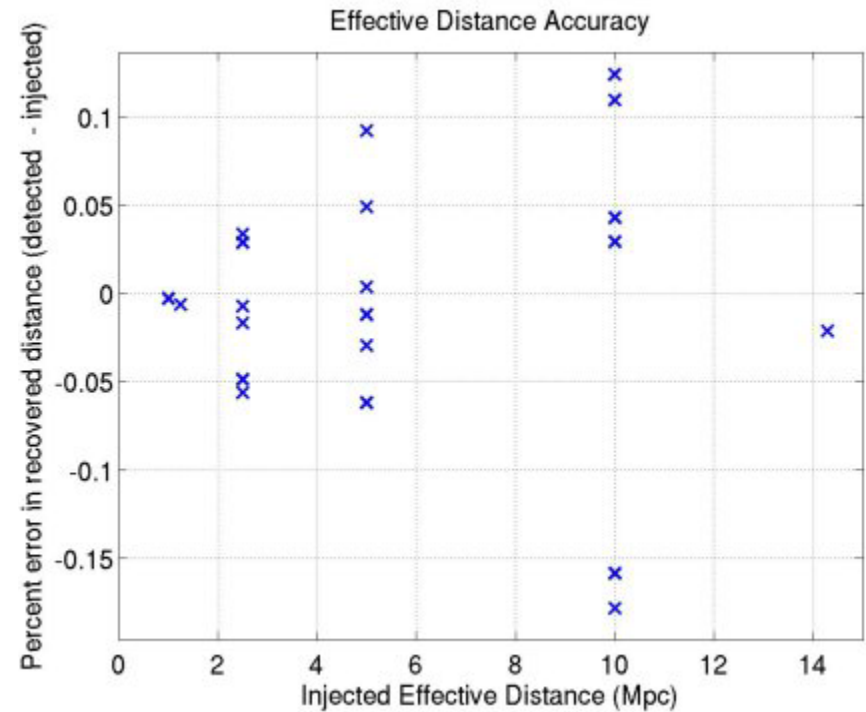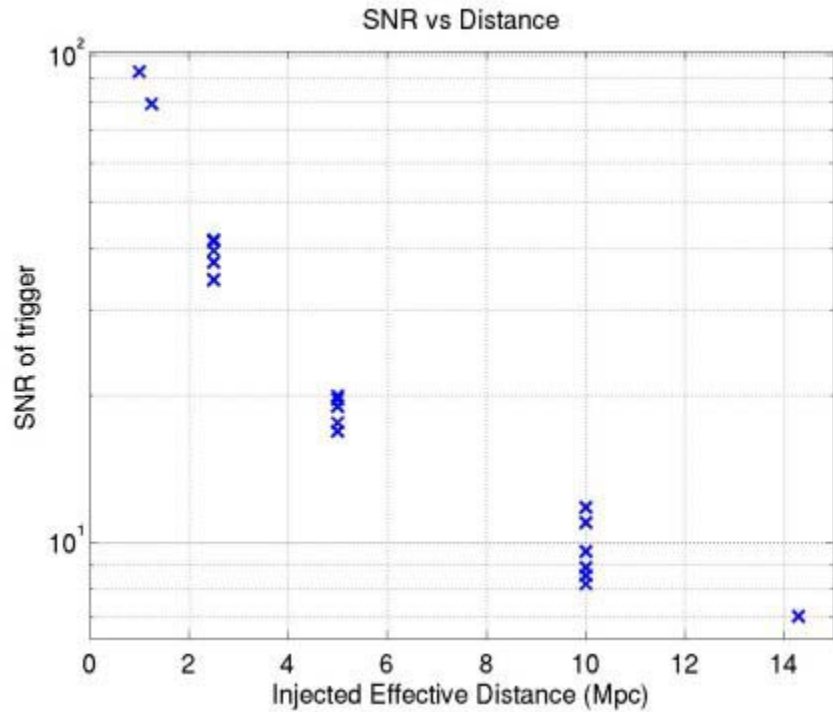
Inspiral notebook entries:

Inspiral E12 investigations

http://www.lsc-group.phys.uwm.edu/iulgroup/investigations/engrun.html#e12

In particular,

Loudest triggers follow up:

http://www.lsc-group.phys.uwm.edu/cgibin/enote.pl?nb=e12&action=view&page=7

Hardware injections:

http://www.lsc-group.phys.uwm.edu/cgibin/enote.pl?nb=e12&action=view&page=5

InspiralMon (D. Brown)