Status on Public Alerts

LIGO-Virgo Low-latency Analysis Group July 18, 2019





GraceDB — **Gravitational-Wave Candidate Event Database**

HOME	PUBLIC ALERTS	SEARCH	LATEST	DOCUMENTATION							LOGIN
Latest — as of 17 July 2019 22:40:58 UTC											
Test and MDC events and superevents are not included in the search results by default; see the query help for information on how to search for events and superevents in those categories.											
Query:											
•											
Search for:	Superevent 🗘										
	Search										
										UTC	*
UID			Labels			t_start	t_0	t_end	FAR (Hz)	Created	
S190707q	ADVOK DQOK SKYMA	P_READY PASTE	RO_READY EMBI	RIGHT_READY GCN_PRE	LIM_SENT PE_READY	1246527223.118398	1246527224.181226	1246527225.284180	5.265e-12	2019-07-07 09:33	3:44 UTC
S190706ai	ADVOK DQOK SKYMA	P_READY EMBR	IGHT_READY PA	STRO_READY GCN_PRE	LIM_SENT PE_READY	1246487218.321541	1246487219.344727	1246487220.585938	1.901e-09	2019-07-06 22:26	6:57 UTC
\$190701ah	ADVOK DOOK SKYMA	P READY EMRR	ICHT READY PA	STRO READY CON PRE	LIM SENT DE READY	1246048403 576563	1246048404 577637	1246048405 814941	1 0160-08	2019-07-01 20:33	3.24 LITC

\$190630ag ADVOK DQOK SKYMAP_READY PASTRO_READY EMBRIGHT_READY GCN_PRELIM_SENT PE_READY 1245955942.175325 1245955943.179550 1245955944.183184 1.435e-13 2019-06-30 18:52:28 UTC

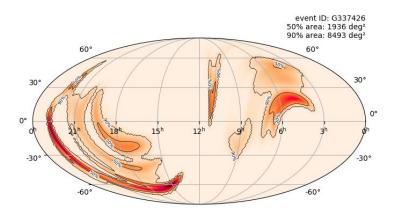
- Modelled (Compact binary) and unmodeled (burst) pipelines are running in low-latency.
- Identification of candidates according to false-alarm-rate (FAR) criterion.
- https://gracedb.ligo.org/latest/
 - a. Four BBH observations.
 - b. One single IFO detection

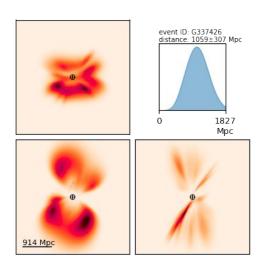




Event summary: S190630ag

- https://gracedb.ligo.org/superevents/S190630ag/
- https://gcn.gsfc.nasa.gov/gcn3/24922.gcn3
- https://gcn.gsfc.nasa.gov/notices_I/S190630ag.lvc
- Detected in Livingston, SNR at Virgo was subthreshold, Hanford was not running



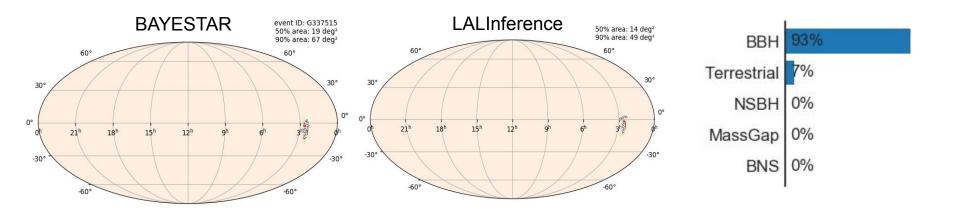






Event summary: S190701ah

- https://gracedb.ligo.org/superevents/S190701ah/
- Initial circular, Update circular
- https://gcn.gsfc.nasa.gov/notices_I/S190701ah.lvc
- Well localized (90% CI = 67 sq. deg). PE further improved it (49 sq. deg)
- BBH, distance: ~1850 Mpc

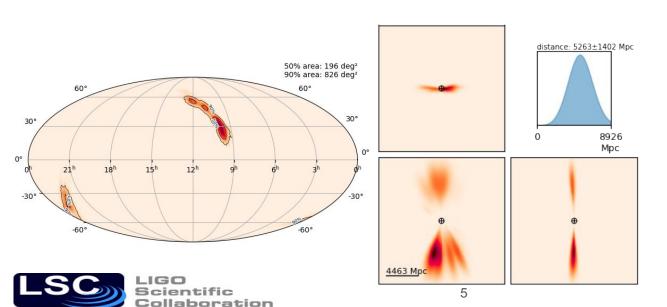


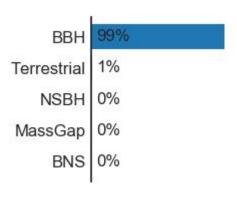




Event summary: S190706ai

- https://gracedb.ligo.org/superevents/S190706ai/
- Initial circular, Update circular
- https://gcn.gsfc.nasa.gov/notices_I/S190706ai.lvc
- BBH. This is the farthest source LVC has observed (>5 Gpc).

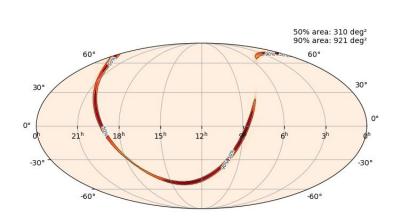


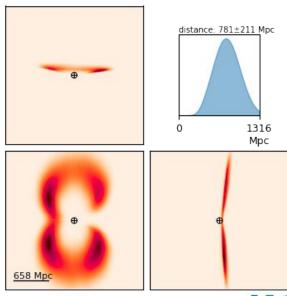




Event summary: S190707q

- https://gracedb.ligo.org/superevents/S190707q/
- <u>Initial circular</u>, <u>Update circular</u>
- https://gcn.gsfc.nasa.gov/notices_I/S190707q.lvc
- Virgo was not in science mode









Outlook

- While sending update for sky-map, the name in the GCN notice (email and socket format) was truncated. This is being fixed.
- For S190701ah, uploaded LALInference sky-map had to be made public manually. This is being automated right now.
- Sky-map updates are provided more regularly now. In only one case (S190630ag) we have failed to provide the sky-map. We will send an update on that shortly. Trying settle to a pattern of sending regular updates.
- A new <u>LVC public alert page</u> is now online
- LIGO-Virgo **Public Alerts User Guide** & Support
 - Feedback or requests for information to: emfollow-userguide@support.ligo.org
- Mailing list
 - Please sign up to the public OpenLVEM mailing list; anyone can subscribe
 - o Instructions at https://wiki.gw-astronomy.org/OpenLVEM



