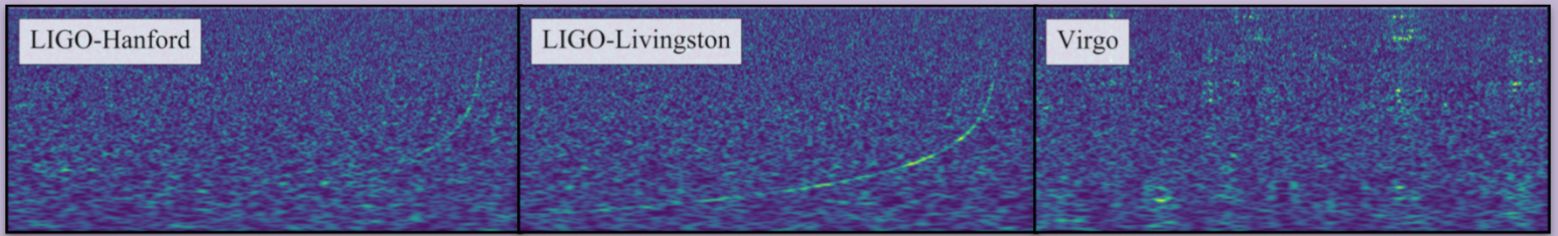
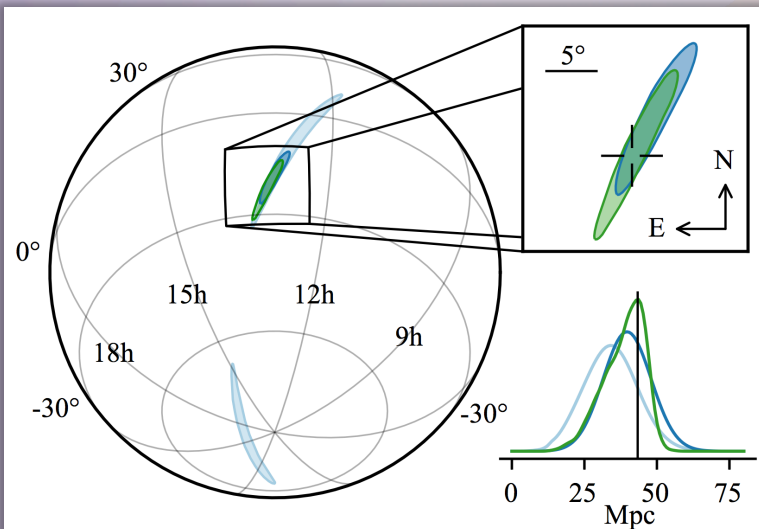


GW170817 FACTSHEET



observed by	H, L, V	inferred duration from 30 Hz to 2048 Hz**	~ 60 s
source type	binary neutron star (NS)	inferred # of GW cycles from 30 Hz to 2048 Hz**	~ 3000
date	17 August 2017	initial astronomer alert latency*	27 min
time of merger	12:41:04 UTC	HLV sky map alert latency*	5 hrs 14 min
signal-to-noise ratio	32.4	HLV sky area†	28 deg ²
false alarm rate	< 1 in 80 000 years	# of EM observatories that followed the trigger	~ 70
distance	85 to 160 million light-years	also observed in	gamma-ray, X-ray, ultraviolet, optical, infrared, radio
total mass	2.73 to 3.29 M _⊙	host galaxy	NGC 4993
primary NS mass	1.36 to 2.26 M _⊙	source RA, Dec	13 ^h 09 ^m 48 ^s , -23°22'53"
secondary NS mass	0.86 to 1.36 M _⊙	sky location	in Hydra constellation
mass ratio	0.4 to 1.0	viewing angle (without and with host galaxy identification)	≤ 56° and ≤ 28°
radiated GW energy	> 0.025 M _⊙ c ²	Hubble constant inferred from host galaxy identification	62 to 107 km s ⁻¹ Mpc ⁻¹
radius of a 1.4 M _⊙ NS	likely ≤ 14 km		
effective spin parameter	-0.01 to 0.17		
effective precession spin parameter	unconstrained		
GW speed deviation from speed of light	< few parts in 10 ¹⁵		



Images: time frequency traces (top), GW sky map (left, HL = light blue, HLV = dark blue, improved HLV = green, optical source location = cross-hair)

GW=gravitational wave, EM = electromagnetic, M_⊙=1 solar mass=2x10³⁰ kg, H/L=LIGO Hanford/Livingston, V=Virgo

Parameter ranges are 90% credible intervals.
 *referenced to the time of merger
 **maximum likelihood estimate
 †90% credible region