

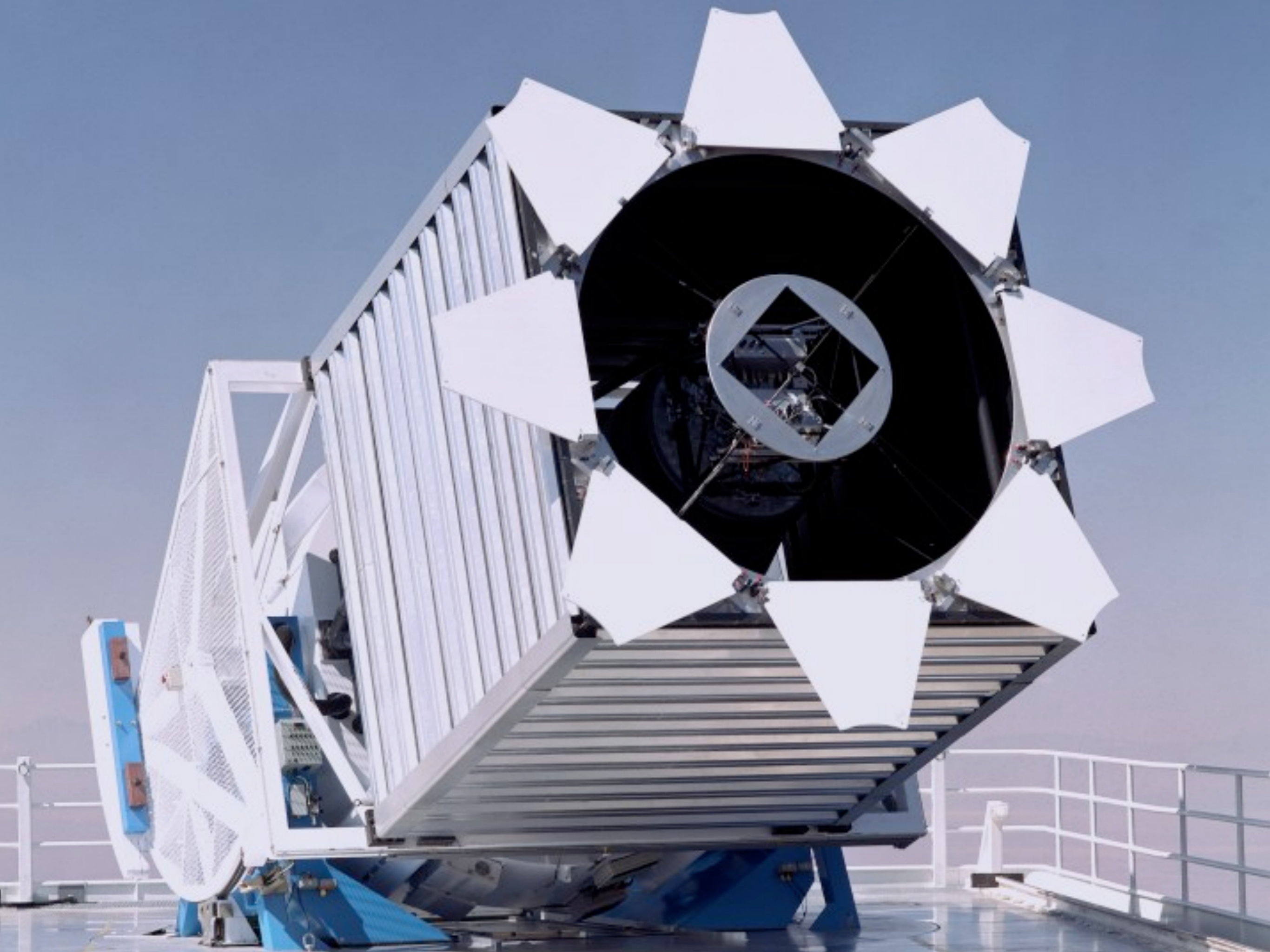
AAAI Fall Symposium: Accelerating Science: A Grand Challenge for AI—18 November 2016

Humans, Machines, and the Future of Citizen Science

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Information Studies
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Partially supported by NSF Grants 09-68470, 12-11071 & 15-47880.

Gravity Spy is the work of the Gravity Spy Team, <http://gravity-spy.org/>





GALAXY ZOO.org

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Galaxy Analysis

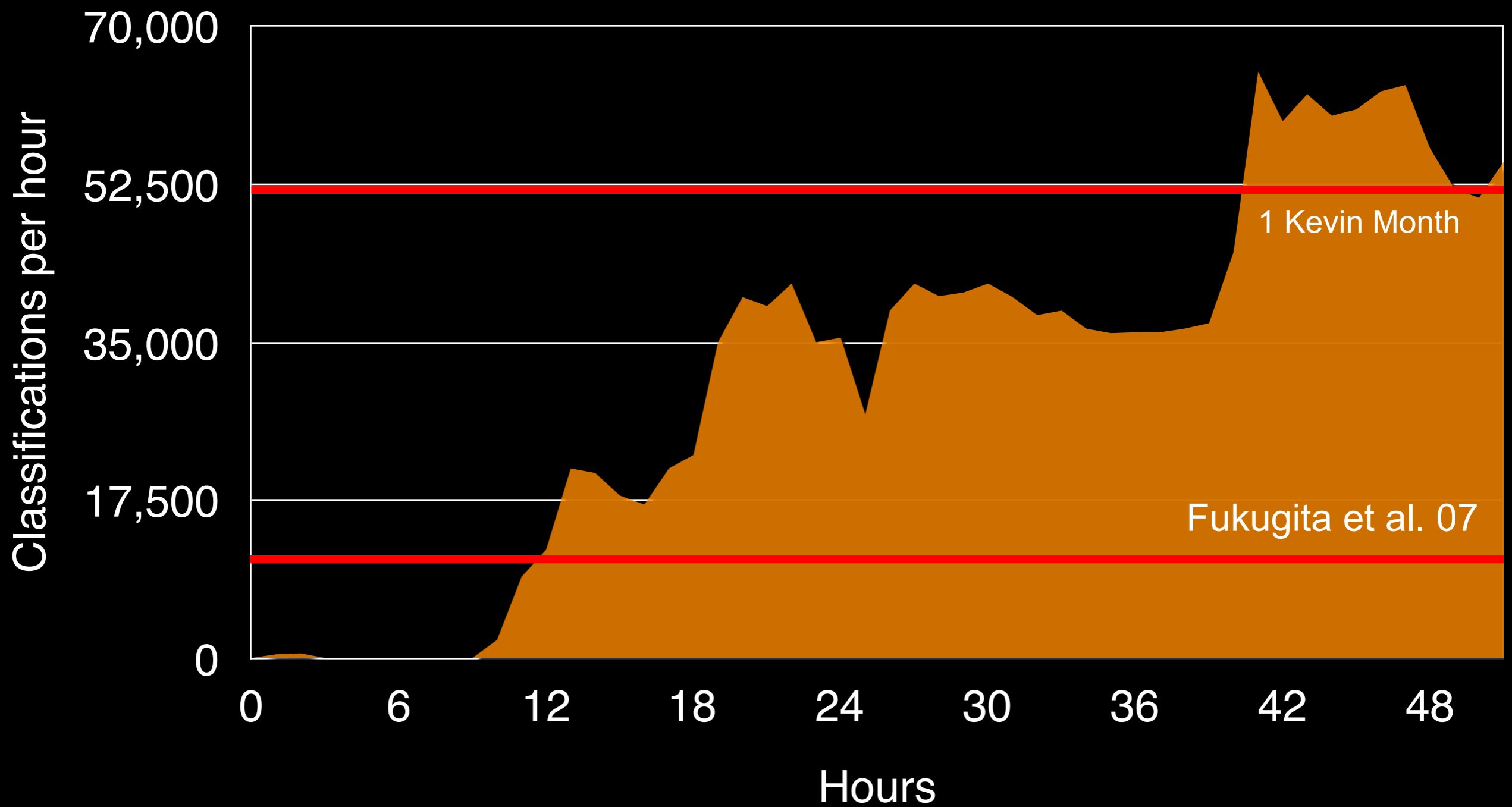
Welcome to Galaxy Zoo's view of the Universe. If you're here you should already have seen the [Tutorial](#), but feel free to go and remind yourself. There's no need to agonise for too long over any one image, just make your best guess in each case.

☐ Show Grid Overlay on the next Image

Galaxy Ref:
588010880371851294

Choose the Galaxy Profile
by clicking the buttons
below





From Lintott (2015). Exploring the Moon Together : An Introduction to Moon Zoo

<http://documentslide.com/documents/exploring-the-moon-together-an-introduction-to-moon-zoo.html>

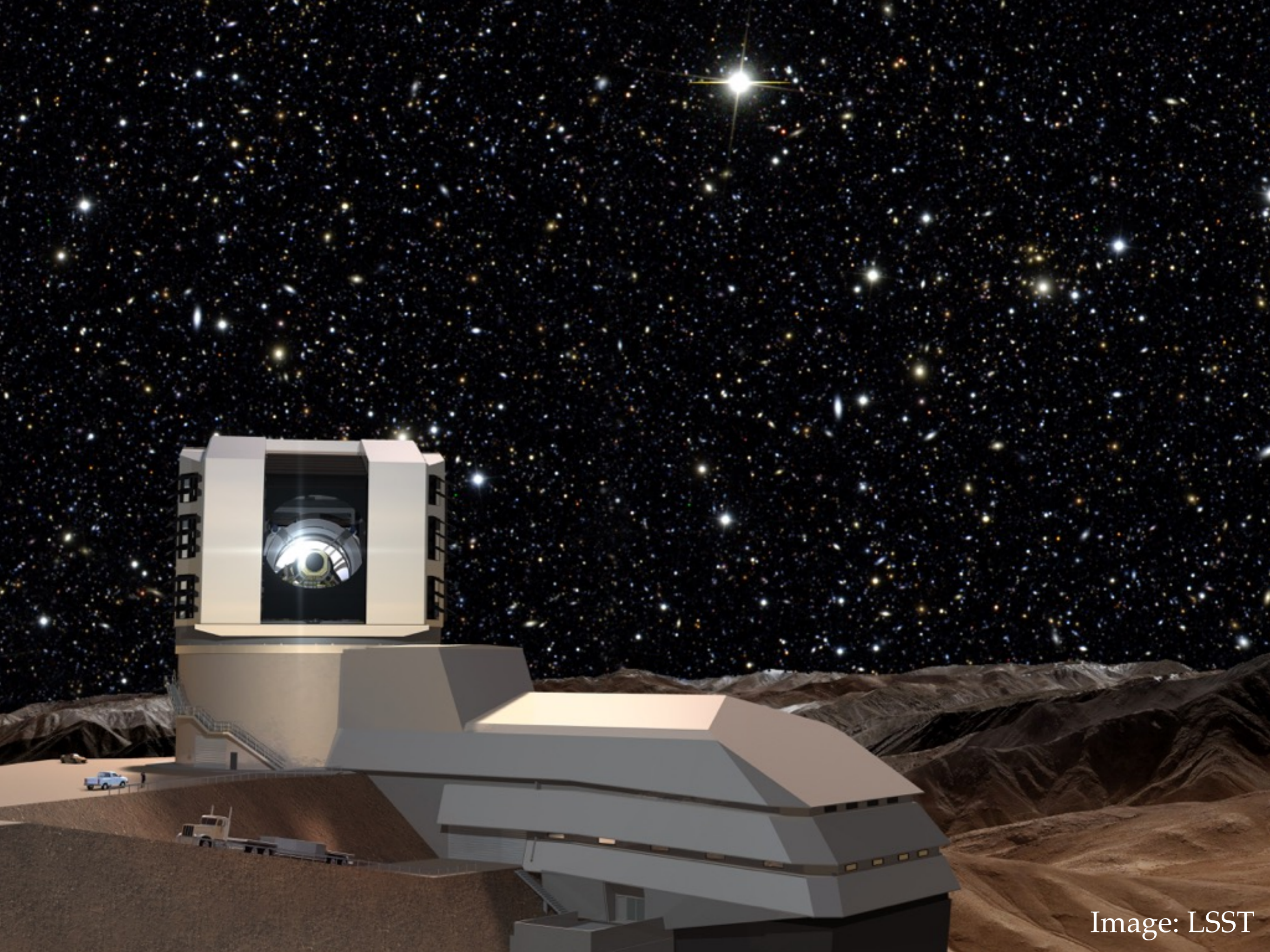


Image: LSST



GT: horse cart

1: horse cart

2: minibus

3: oxcart

4: stretcher

5: half track



GT: birdhouse

1: birdhouse

2: sliding door

3: window screen

4: mailbox

5: pot



GT: forklift

1: forklift

2: garbage truck

3: tow truck

4: trailer truck

5: go-kart



GT: coucal

1: coucal

2: indigo bunting

3: lorikeet

4: walking stick

5: custard apple



GT: komondor

1: komondor

2: patio

3: llama

4: mobile home

5: Old English sheepdog



GT: yellow lady's slipper

1: yellow lady's slipper

2: slug

3: hen-of-the-woods

4: stinkhorn

5: coral fungus

He, Zhang, Ren & Sun (2015). Delving Deep into Rectifiers: Surpassing Human-Level Performance on ImageNet Classification. ArXiv 1502.01852v1

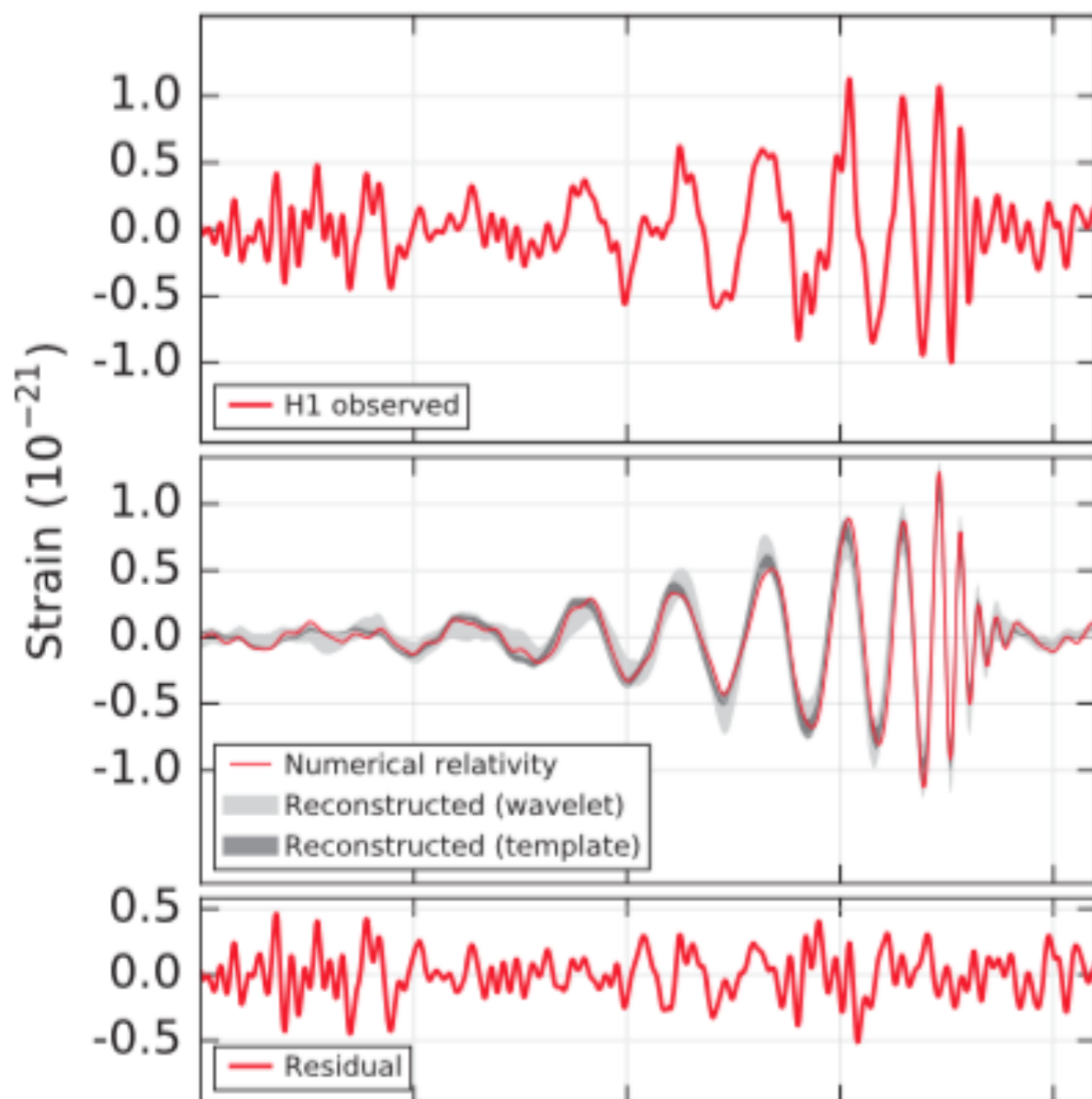




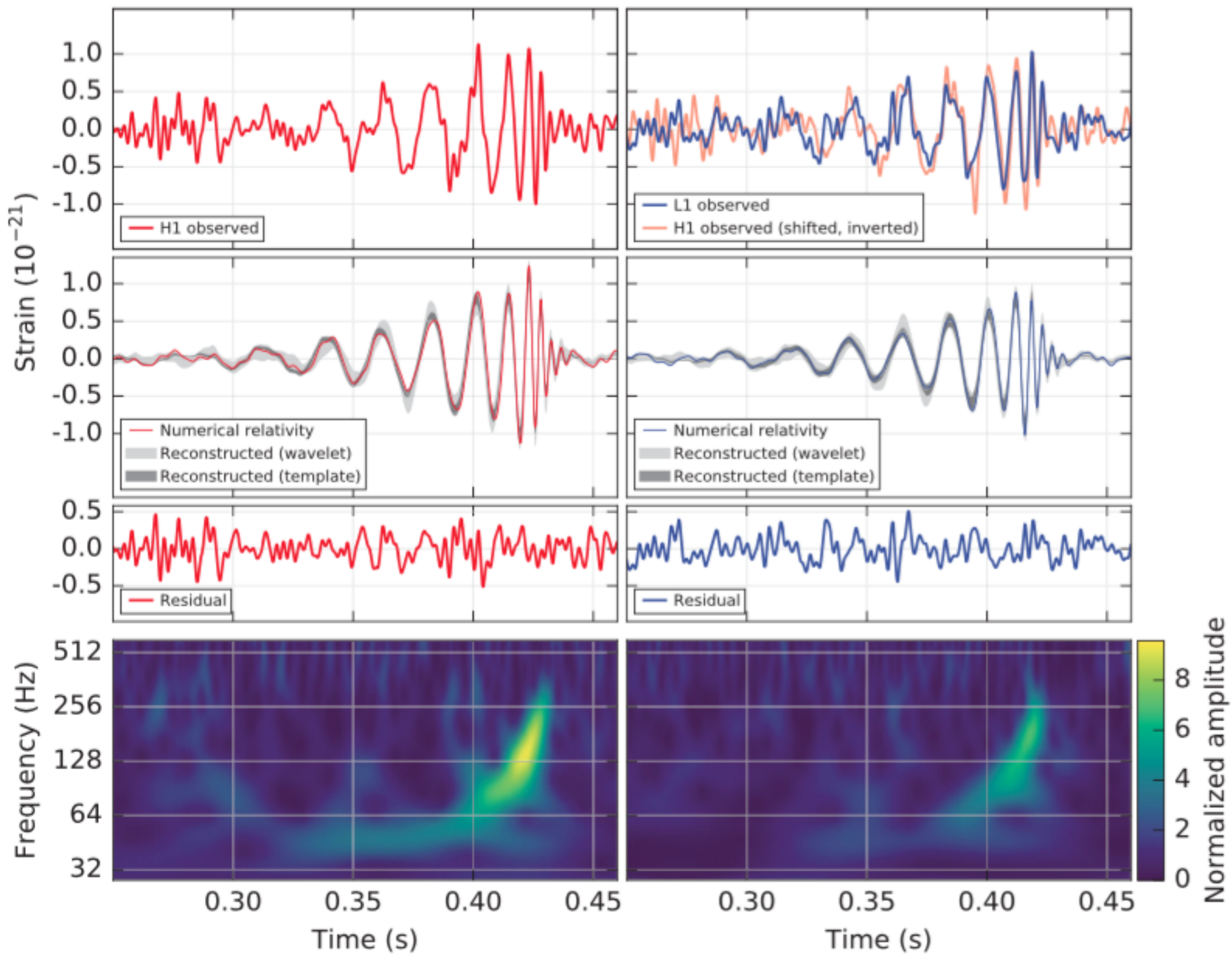
LIGO (Laser Interferometer Gravitational-wave Observatory)



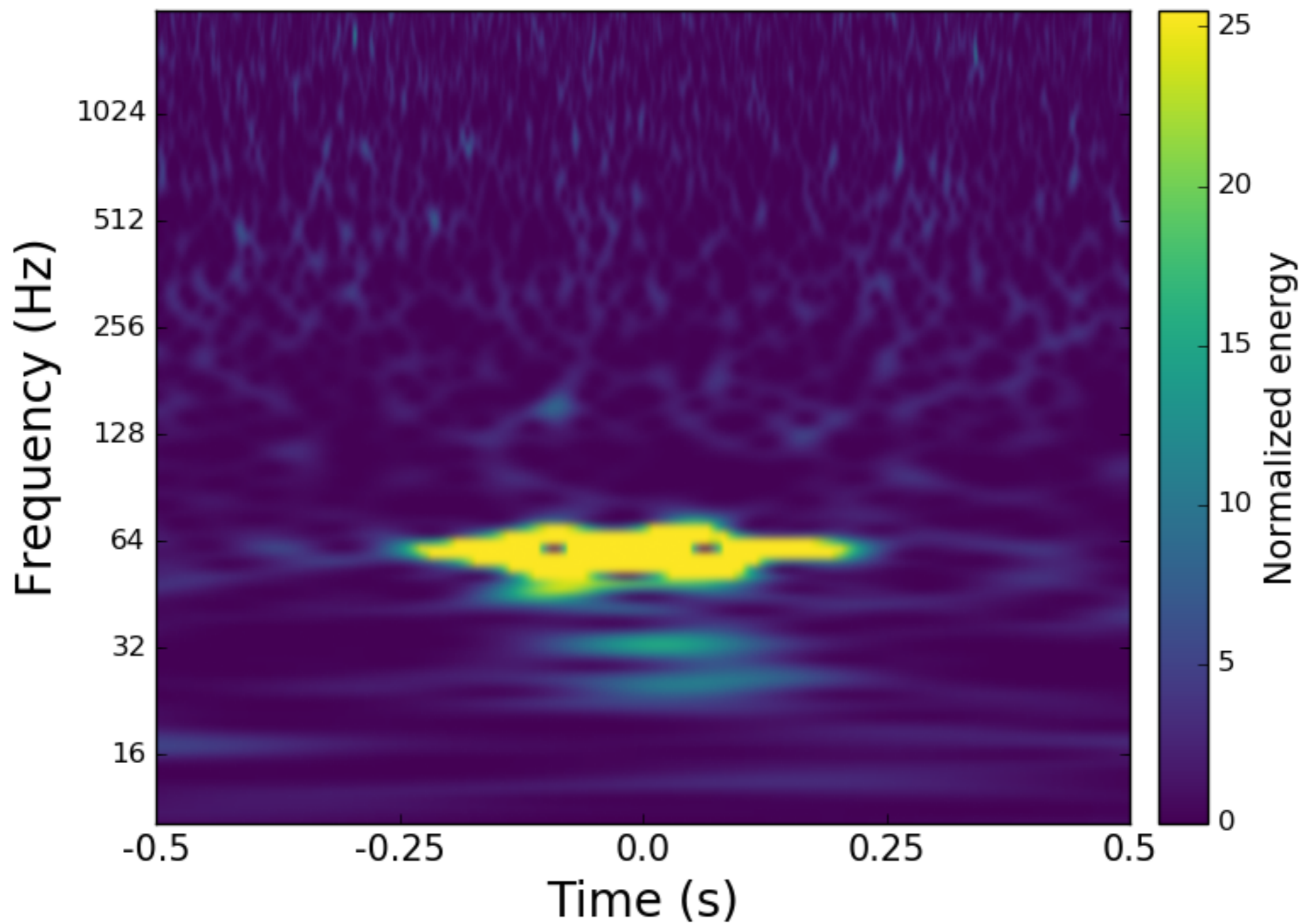
Hanford, Washington (H1)



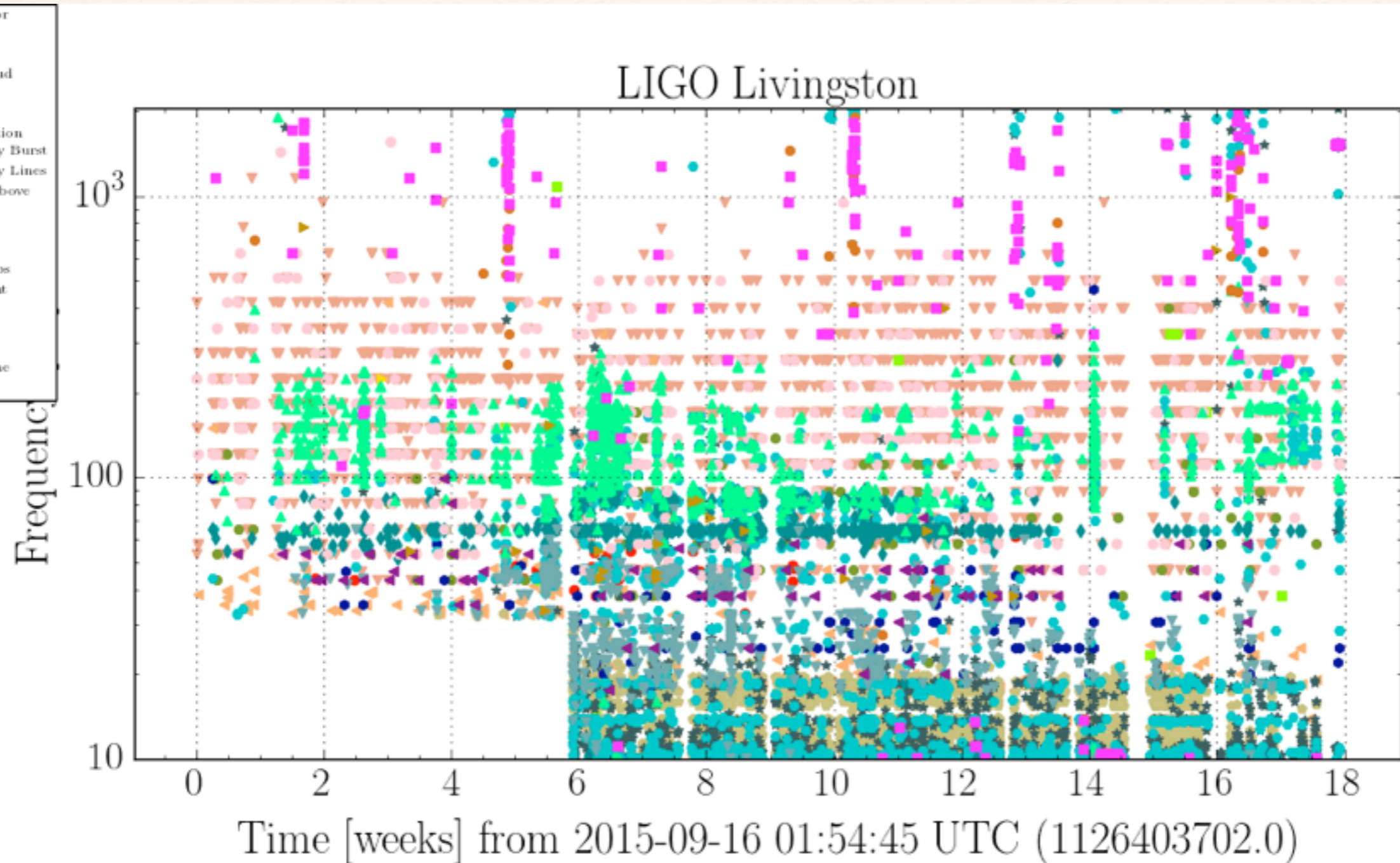
Livingston, Louisiana (L1)



Hanford

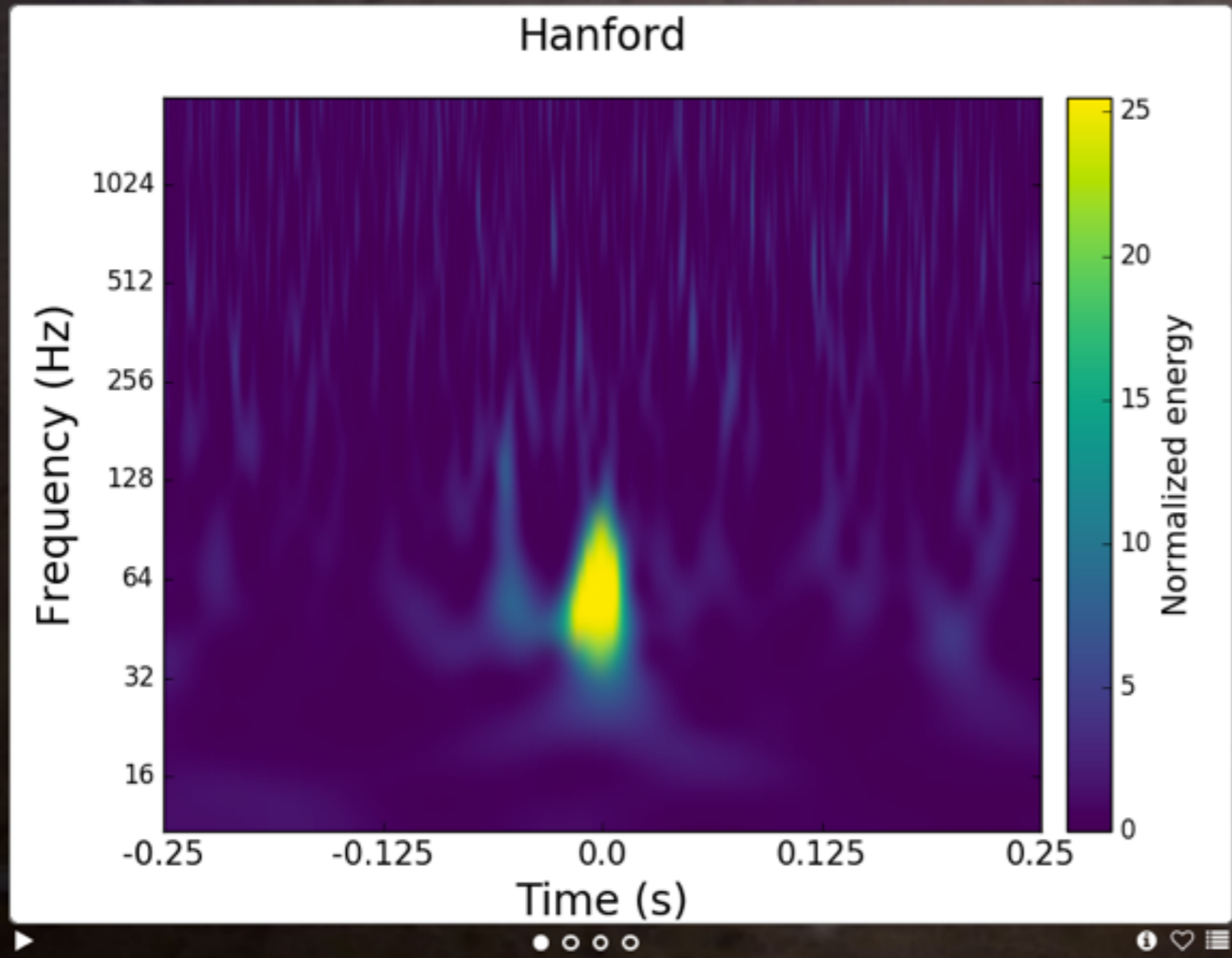






















Glitches





We are attempting some upgrades to the workflow promotion algorithm, during this time you may spend longer than expected stuck at a certain level workflow. If you no longer see a level previously unlocked, please let us know in talk.



Duration	Frequency	Evolving
 Air Compressor (50 Hz)	 No Glitch	
 Blip	 Paired Doves	
 Chirp	 Power Line (60 Hz)	
 Extremely Loud	 Repeating Blips	
 Helix	 Scattered Light	
 Koi Fish	 Scratchy	
 Light Modulation	 Tomte	
 Low Frequency Burst	 Violin Mode Harmonic (500 Hz)	
 Low Frequency Line	 Wandering Line	
 None of the Above	 Whistle	

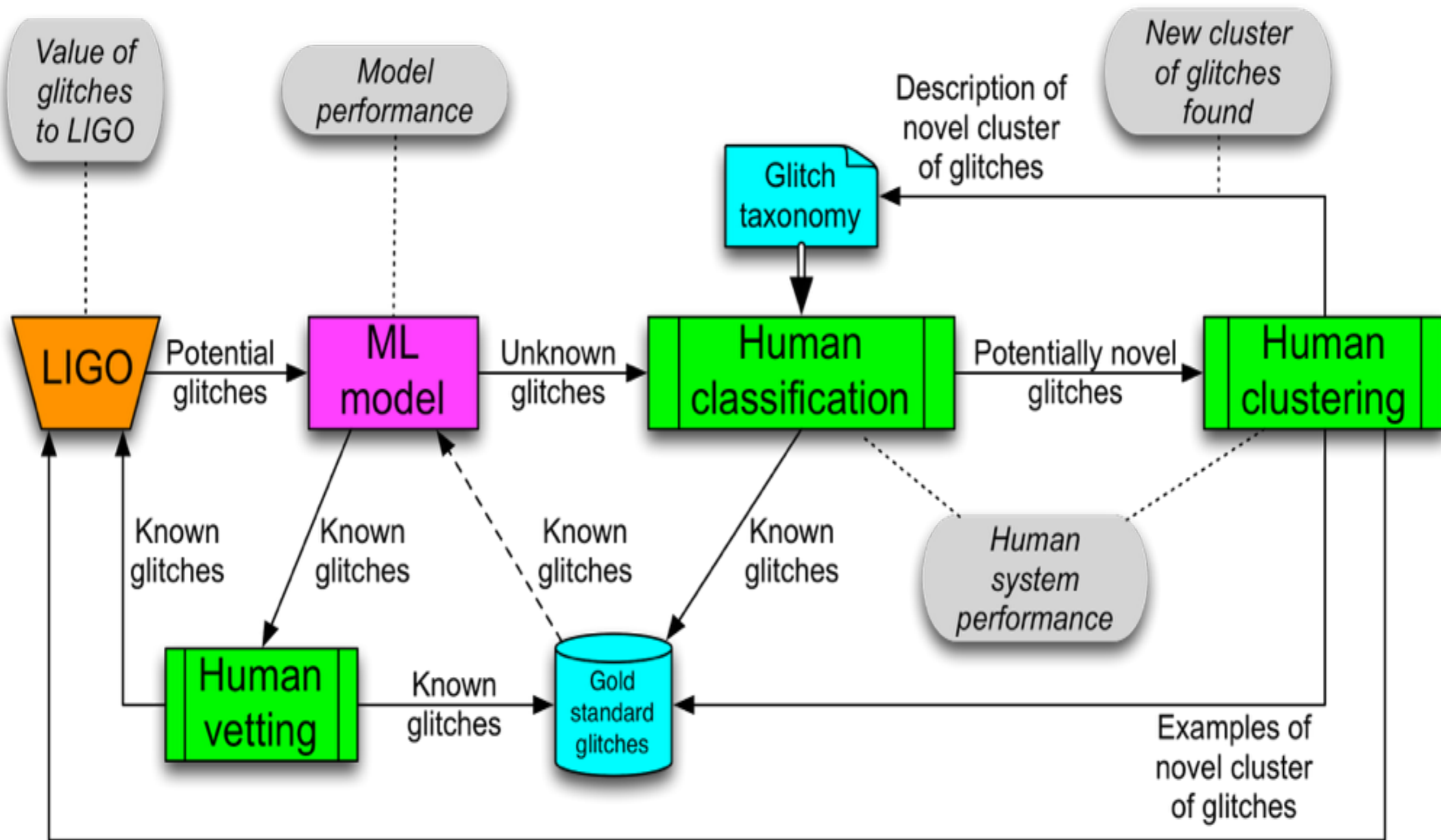
Showing 20 of 20. [Clear filters](#)

[Done & Talk](#) [Done](#) 

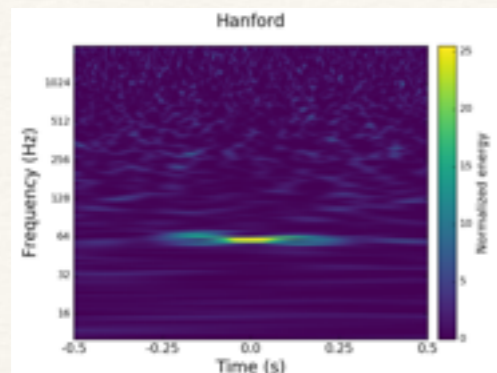
[Show the project tutorial](#)

[Restart the project mini-course](#)

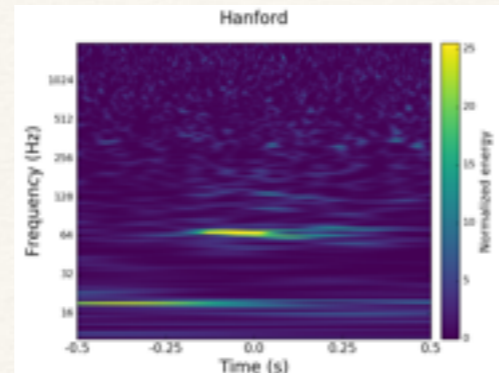
FIELD GUIDE



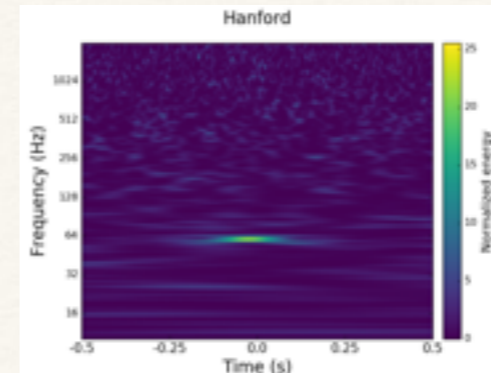
External entity Machine processing Human processing Data stores Research measures



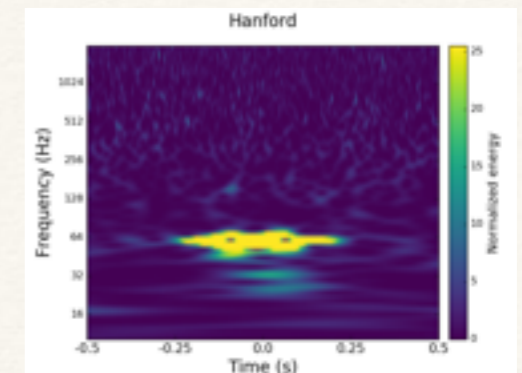
ML Confidence: 0.998
H1_meBLZbphwP



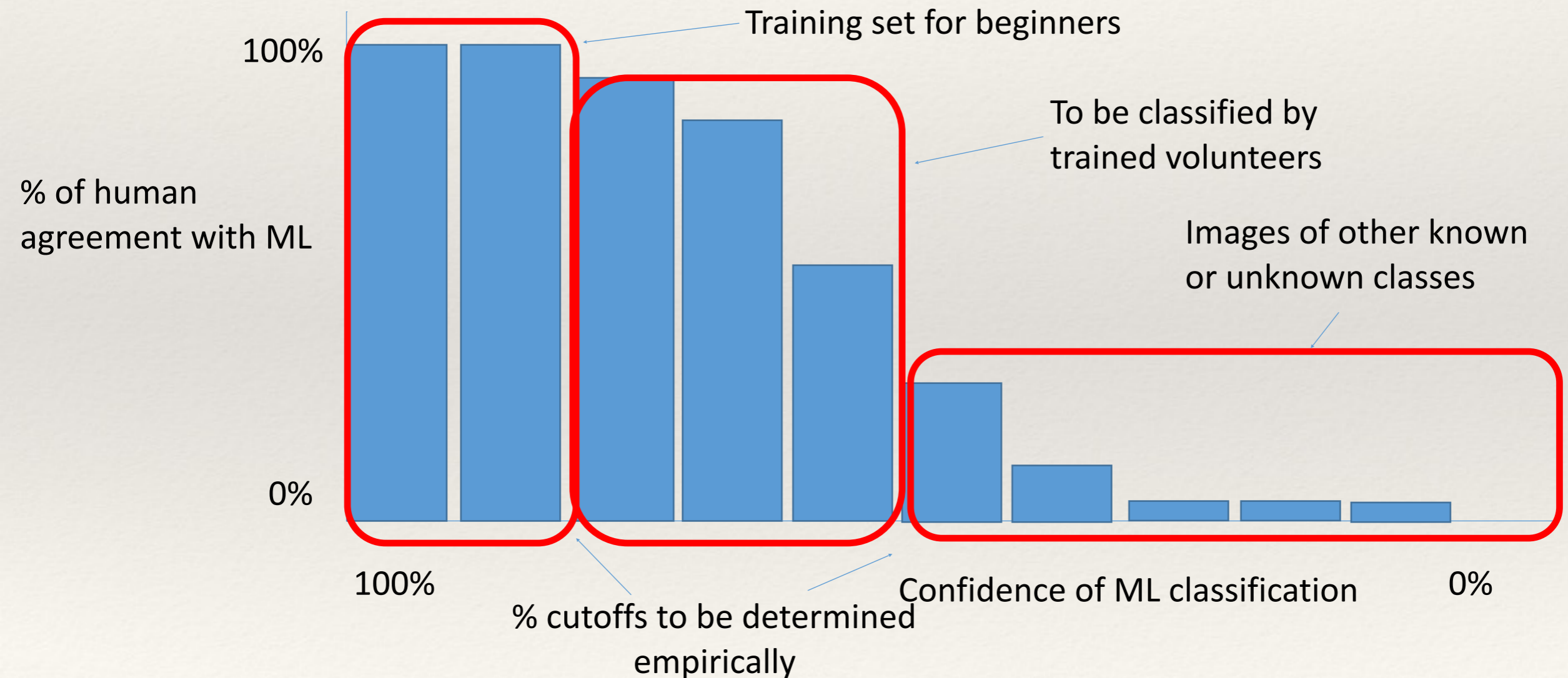
ML Confidence: 0.794
H1_agsp7RitSw

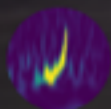


ML Confidence: 0.627



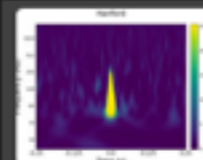
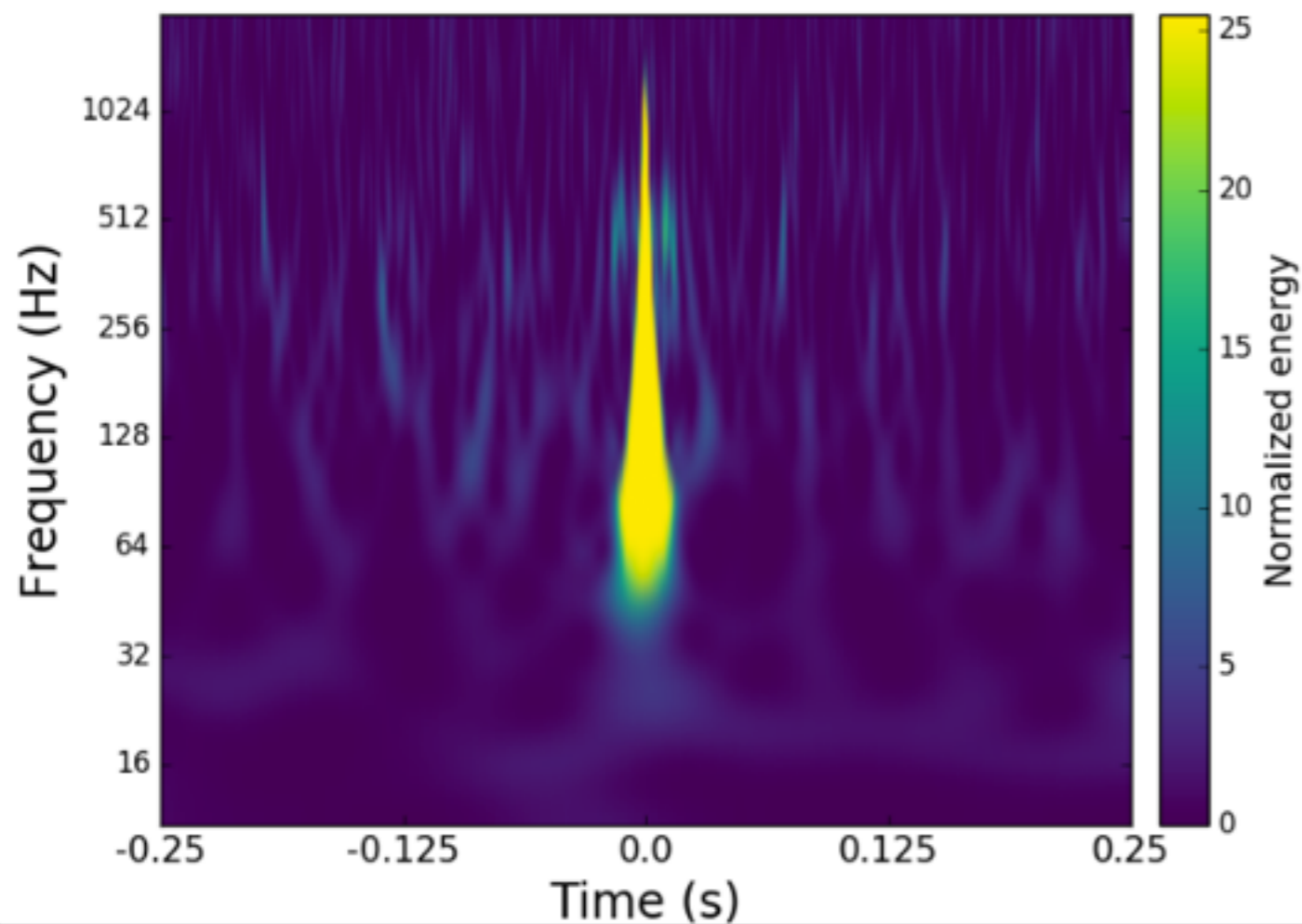
ML Confidence: 0.346



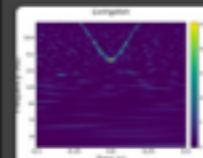


Hello! Thank you for participating in the final beta testing of the Gravity Spy project. We are currently fixing bugs and implementing your suggestions. The full project will launch on October 12th!

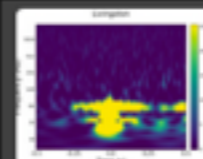
Livingston



Blip



Whistle



None of the Above

Showing 3 of 3. [Clear filters](#)

Done & Talk

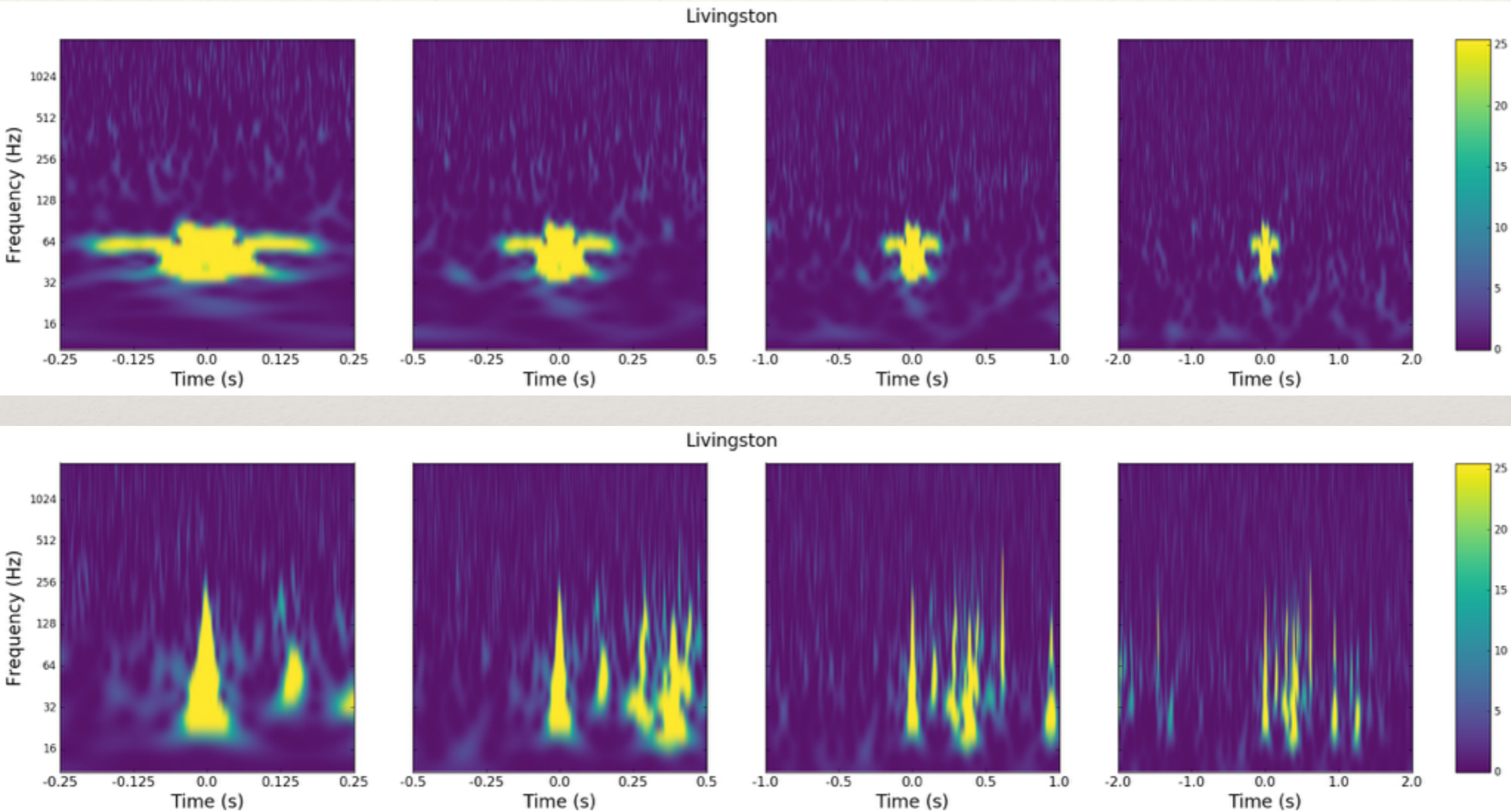
Done

Show the project tutorial

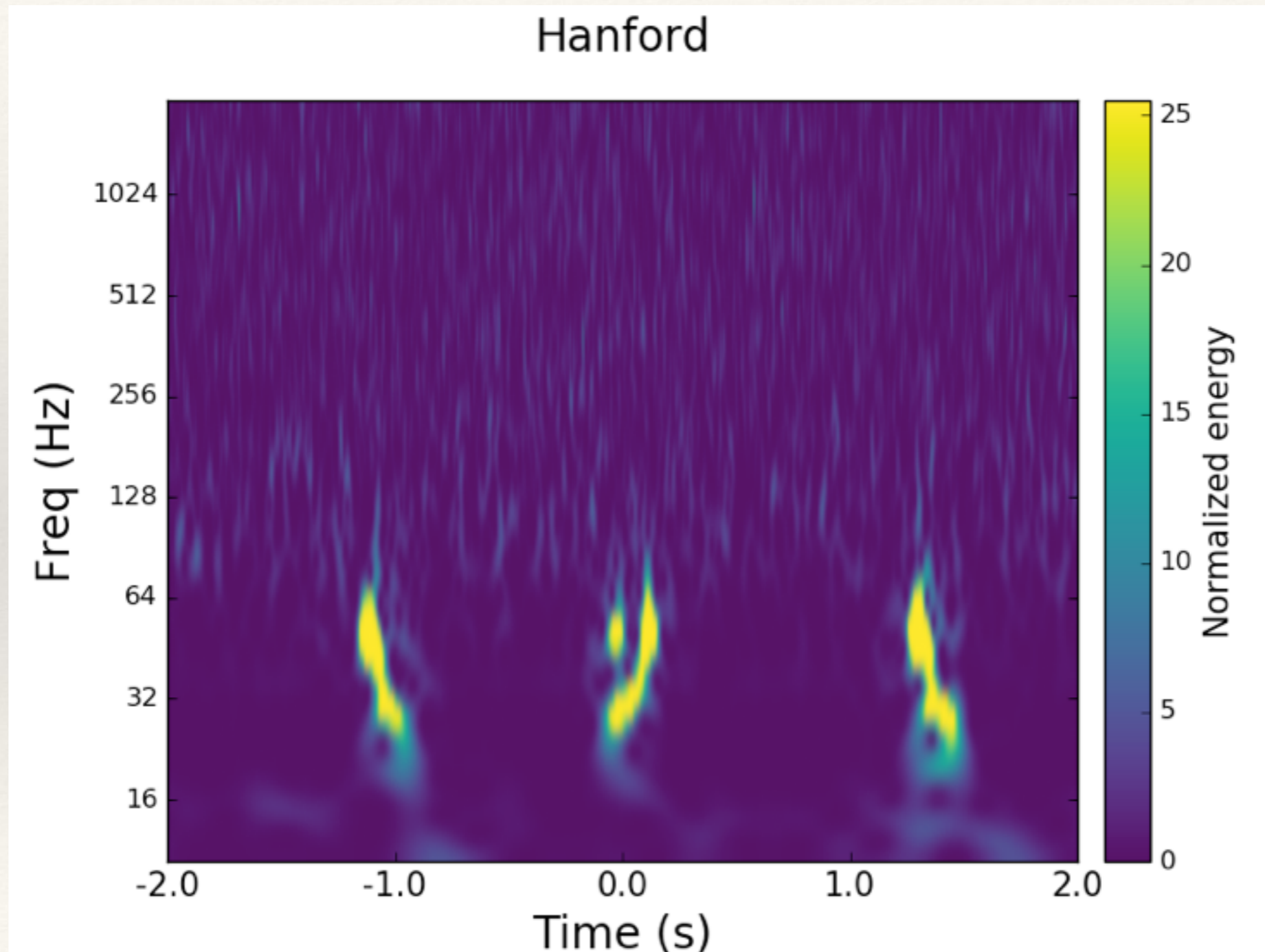
FIELD GUIDE

You should sign in!

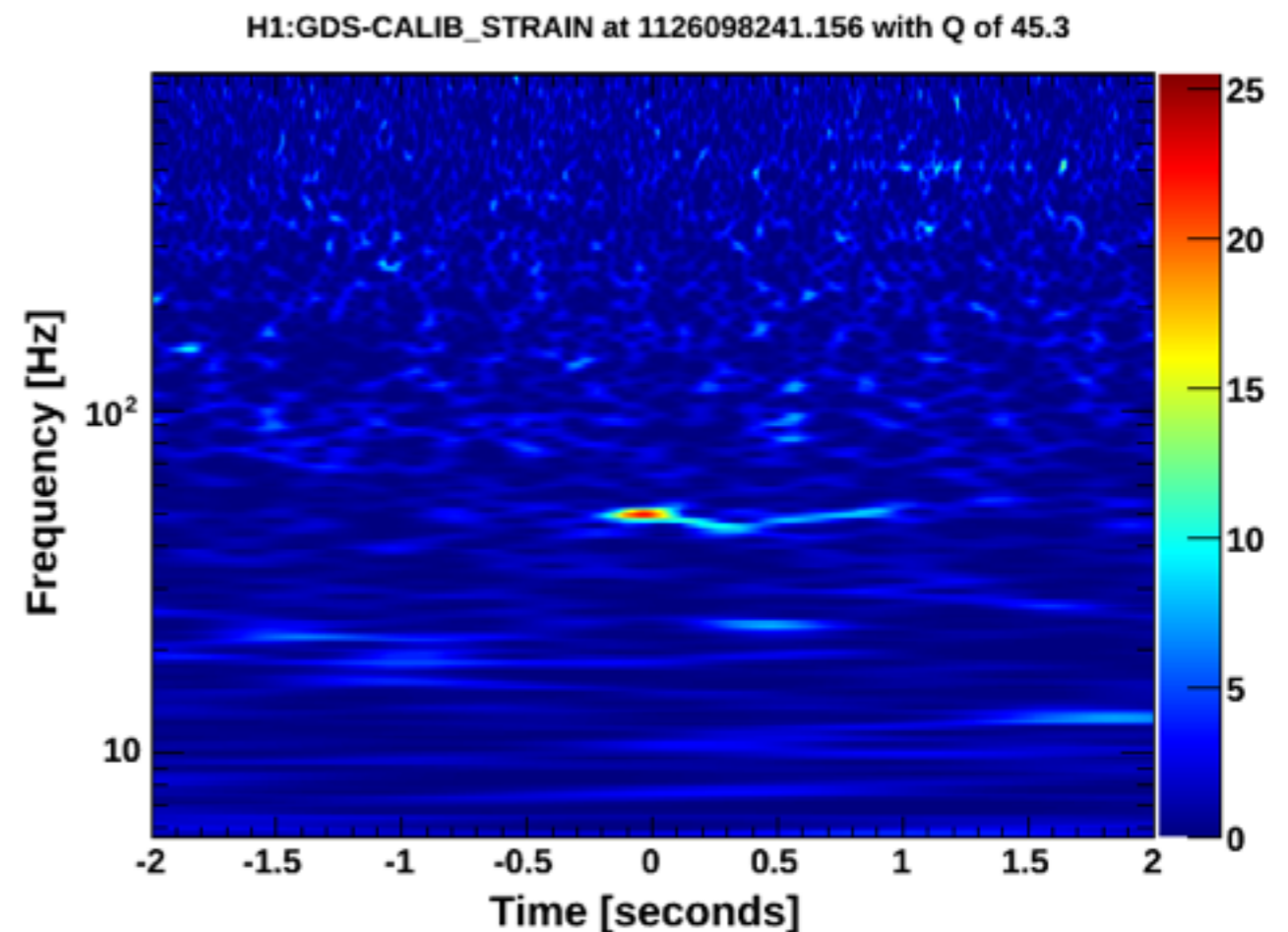
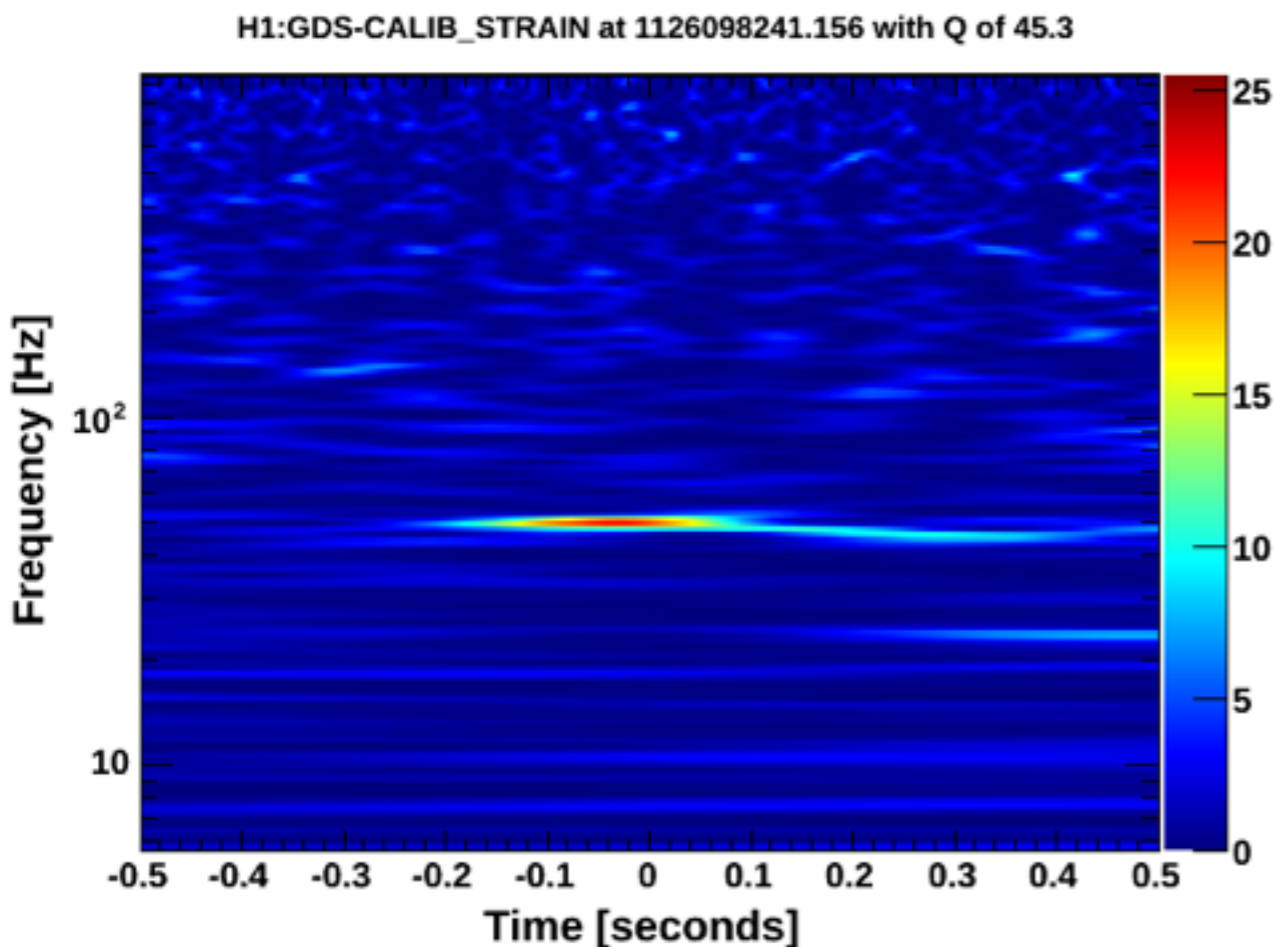
“None of the above”



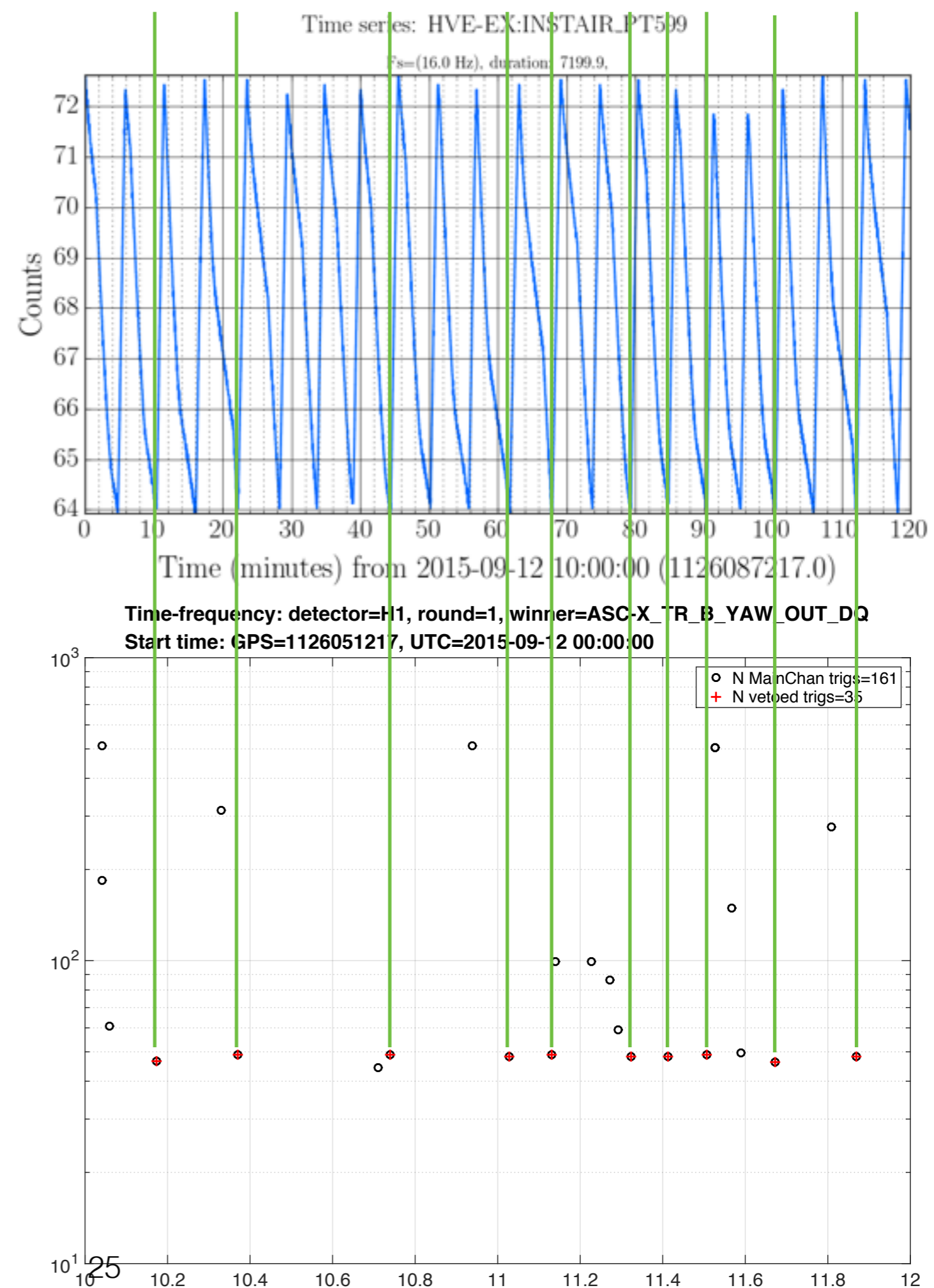
Our Voorwerp: Paired Doves



50 Hz glitches seen in gravitational-wave channel



Correlation with air compressor turn on



Issue found at detector (shorted vibration isolation)



~~Work~~ Citizen science of the future

- Future citizen science can include volunteers and “bots”
- Need to learn how to work in mixed teams
- Need to understand organizational and social impacts

