Mobile app to provide the latest on black hole collisions and merging neutron stars

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With the start of the third observing run, these gravitational wave events are being released for the first time on public alerts allowing anyone to join us on our journey to discover more about the universe.

Then Postgraduate student, now research fellow Sam Cooper explained his idea for making the app.

"I'd long wanted a way to showcase to my young cousins what I was researching at university and why I couldn't play more Mario Kart with them during the week! I wanted to display the event information in a clear and understandable way, which is the driving focus of Chirp."

Gravitational waves are generated by some of the most catastrophic, violent events occurring in the Universe, such as the collision of black holes and neutron stars. The gravitational waves detected on 14 September 2015 originated from two black holes, each around 30 times the mass of our Sun and located more than a billion light years from Earth, merging to form a single, more massive black hole. The discovery confirms one of the major predications of Albert Einstein's 1915 theory of general relativity.

Aaron Jones another PhD student added, "I develop new technology for the Gravitational Wave detectors here in Birmingham. Observing run 3 was particularly exciting as we have improved the detection sensitivity. I was excited to develop this with Sam because at a glance I can now see a quick overview of the detection candidates and their probable origins."

Sam Morrell another PhD student at the University of Exeter added: "I have been intrigued for a long time about the potential promise that modern technologies have for tapping into the public enthusiasm for cutting edge science. So when Sam discussed with me his vision for Chirp - to make an easily accessible resource to enable everyone to follow gravitational wave alerts - I was excited to..."
help out."

The app can be downloaded at the links below.

**More information:** iOS:  
[apps.apple.com/app/chirp-gravitational-waves-app/id1484328193](apps.apple.com/app/chirp-gravitational-waves-app/id1484328193)

Android:  

Provided by University of Birmingham