



HOW DID YOU HELP ASTRONOMERS CREATE A STUNNING SPACE PHOTO?

Video transcript: Clip from Stargazing Live, Series 5 Episode 3, first broadcast on BBC Two on 20 March 2015

DARA O BRIAIN:

Chris, we had a charge to take as many photos of Orion. Why were we doing this?

PROFESSOR CHRIS LINTOTT:

We were doing it to try and create a wide image that showed us some of the detail that you'd normally need a telescope to see. And we got 790 images sent in, mostly from Scotland where it was clear last night.

And each of them looked a bit like this – it's fairly typical image of Orion...

DARA O BRIAIN:

Normal cameras and camera phones...

PROFESSOR CHRIS LINTOTT:

Yep, no telescopes involved.

So one image looks like this, but you put them all together with a bit of mathematical magic, and we get something really stunning.

ALL:

Wow.

PROFESSOR CHRIS LINTOTT:

The magic of this image is if you zoom in. More stars just start appearing. Now look at that by the left of the belt stars – that's the Horsehead Nebula there.

PROFESSOR BRIAN COX:

I just need to say, 'cause that looks like, almost like a Hubble Space Telescope picture. Not quite, but on the way.

PROFESSOR CHRIS LINTOTT:

But the point is you see these details across a wide field. Now go down, look at this. This is the Orion Nebula.

DARA O BRIAIN:

Wow.

PROFESSOR CHRIS LINTOTT:

And you see the famous bit in the middle. But look how far that extends. This is a new way, we think, of capturing the faint details in the sky.

PROFESSOR BRIAN COX:

We should emphasise that. So this has not been done before in this way.

PROFESSOR CHRIS LINTOTT:

No we've used it on individual objects, but not for a whole constellation.

PROFESSOR BRIAN COX:

So what we're doing essentially is using... a big telescope collects a lot of photons; 798 of the cameras collect a lot of photons.

And when you merge them together, you get a, well an incredibly detailed...

PROFESSOR CHRIS LINTOTT:

It's a beautiful image.

We're going to put it on the web, so that everyone can download it. And in particular if it was your images that made this up, your pixels are in there somewhere.

PROFESSOR BRIAN COX:

Can people carry on doing that?

PROFESSOR CHRIS LINTOTT:

Yes, please keep uploading the images. There's a link on the Stargazing Live website. And I think we'll use this as a way of monitoring the sky – so we'll do the whole thing.