# 3 super computers create eclipse eclipses that help you preview the total eclipse tonight

Vietnamese astronomers will have to wait until 11pm tonight (August 21) to admire the phenomenon of total transcontinental solar eclipse in the US on Facebook. But if we don't have the patience to wait, we can see how the eclipse will be distorted this time thanks to the following 3D simulator of scientists.

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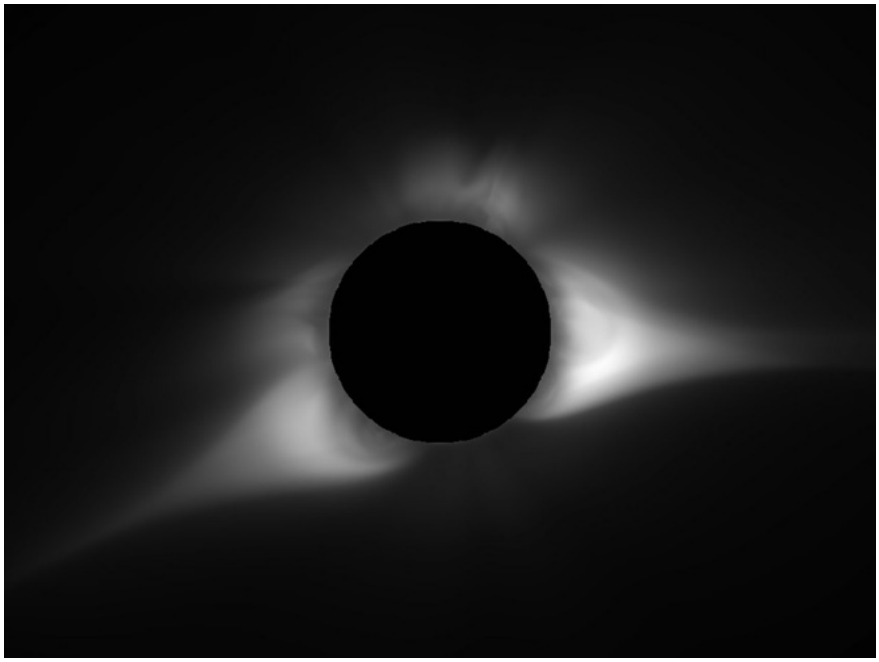
This solar eclipse will take place within 2 minutes, when the Moon will completely cover the Sun. Those who are fortunate to observe this phenomenon will see a dark moon, and a bright ring around it - the Sun itself. Because the Sun is a giant red sphere and influenced by the light of the surrounding stars still gliding in the sky, it is difficult to predict how the halo will look specifically .

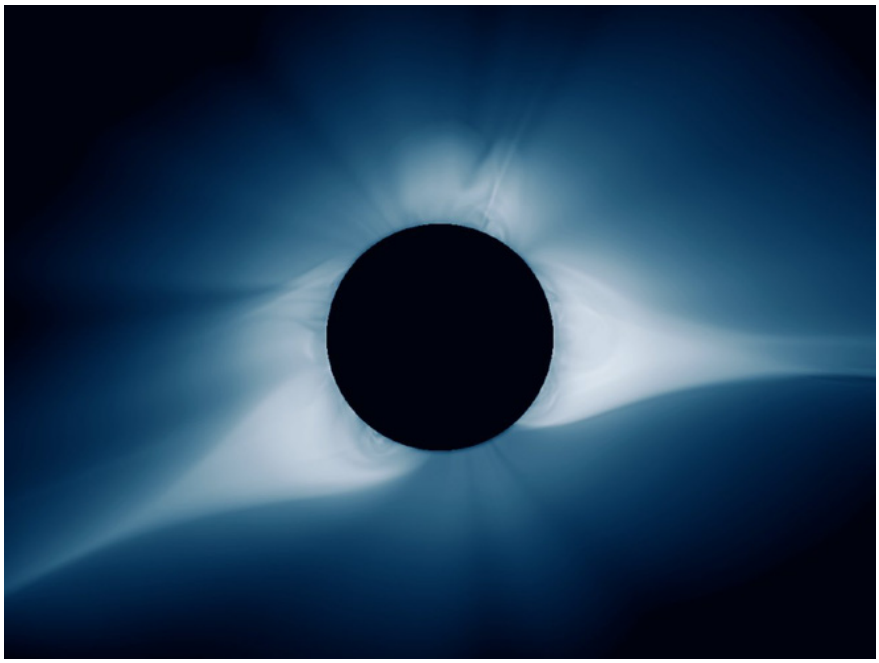
Scientists at the Predictive Science Company used three supercomputers to create a simulated eclipse to guess what the actual eclipse would look like.

Using the data available about the Sun including the magnetic field, the particles it emits, the speed of rotation, . the 3D simulator has built a mathematical model. 3 supercomputers are used as Stampede2 (main machine), Comet of San Diego Supercomputer Center and NASA's Pleiades supercomputer (two auxiliary machines).

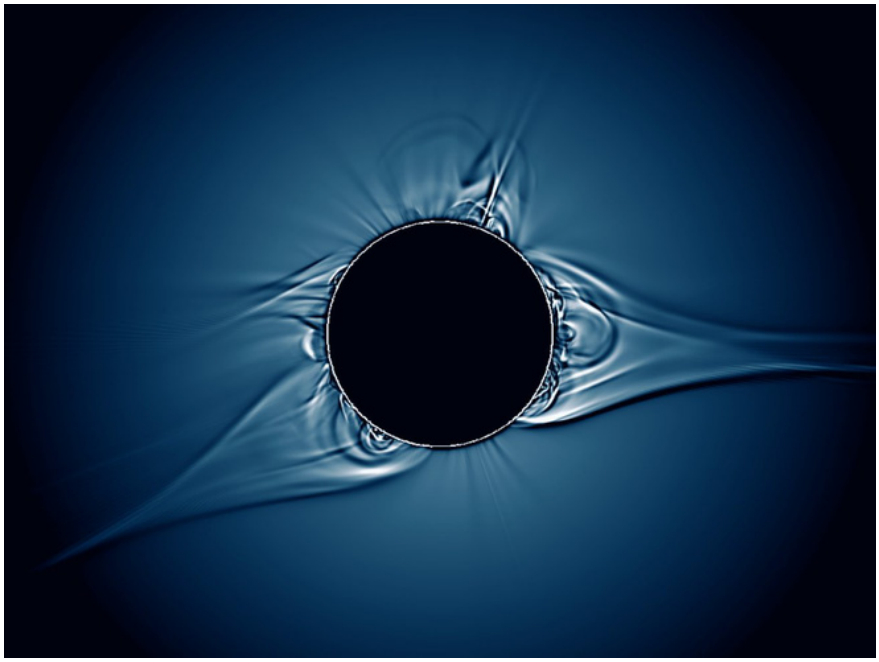
Here are some pictures that this simulator predicted about the halo will appear in the eclipse phenomenon today, August 21.



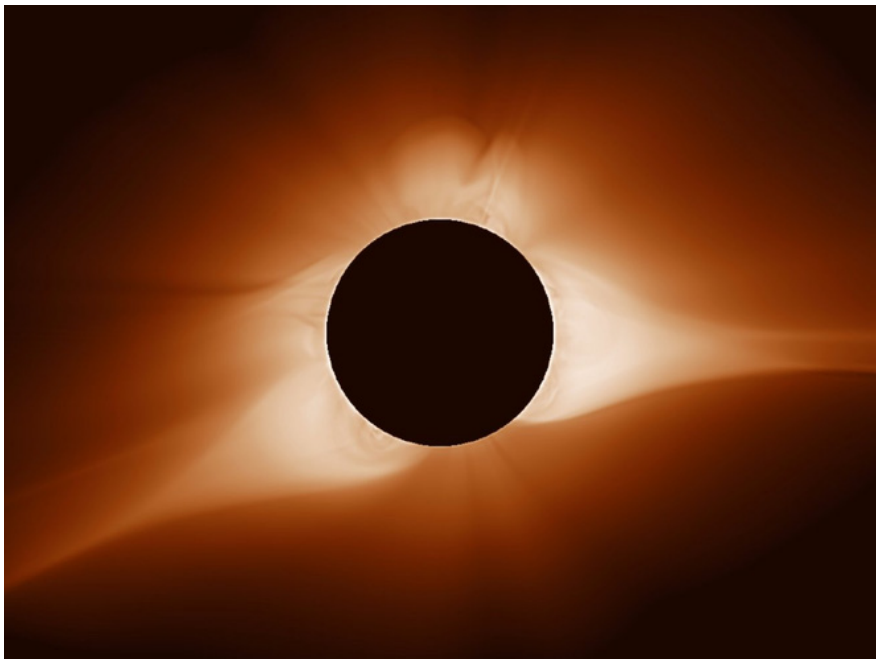
The shape of eclipse when looking through the filter layer of Newkirk image filtering layer.



Solar eclipse will look like this when it has the highest brightness.

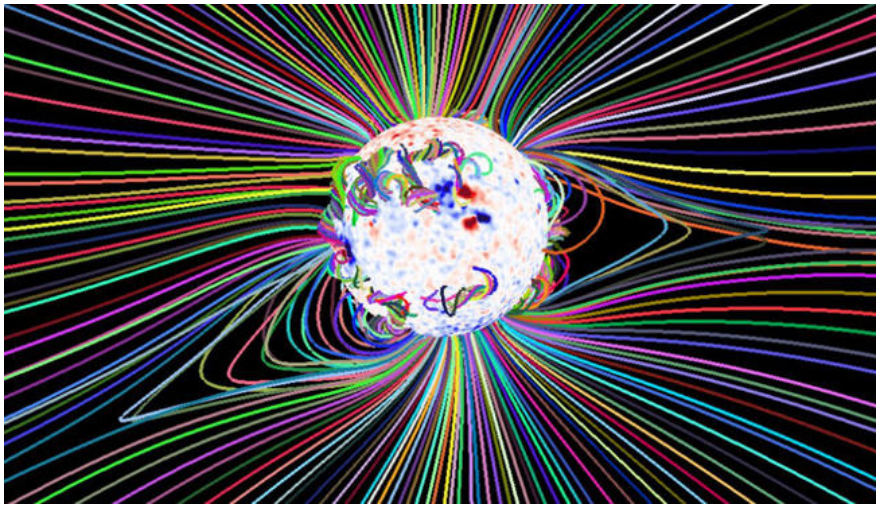


The eclipse of the eclipse will have this wave shape if you add a few more filters.

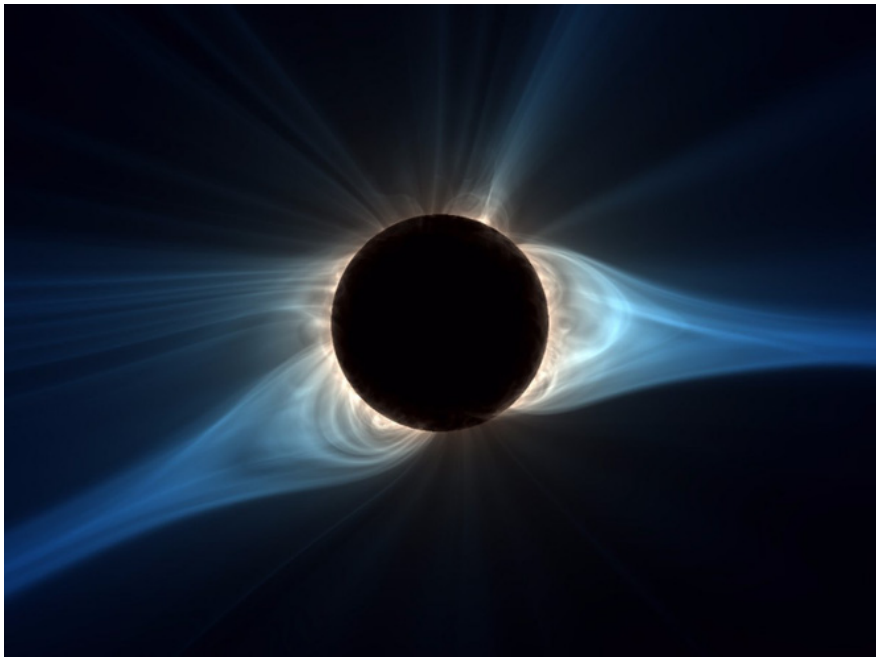


Other eclipse images are given by the aforementioned supercomputer system.

You can see how the halo changes over time through this spinning model.



The magnetic field image of the Sun when real Japanese phenomenon occurs.



The image shows how complicated the halo is.Scientists created it through a combination of layers of images, if we look at it with the naked eye, we can't see it.

Another animation shows the eclipse of the eclipse.