

GRAVITATIONAL LENSING:

1 A Distant Source

Light leaves a young, star-forming blue galaxy near the edge of the visible universe.

2 A Lens Of 'Dark Matter'

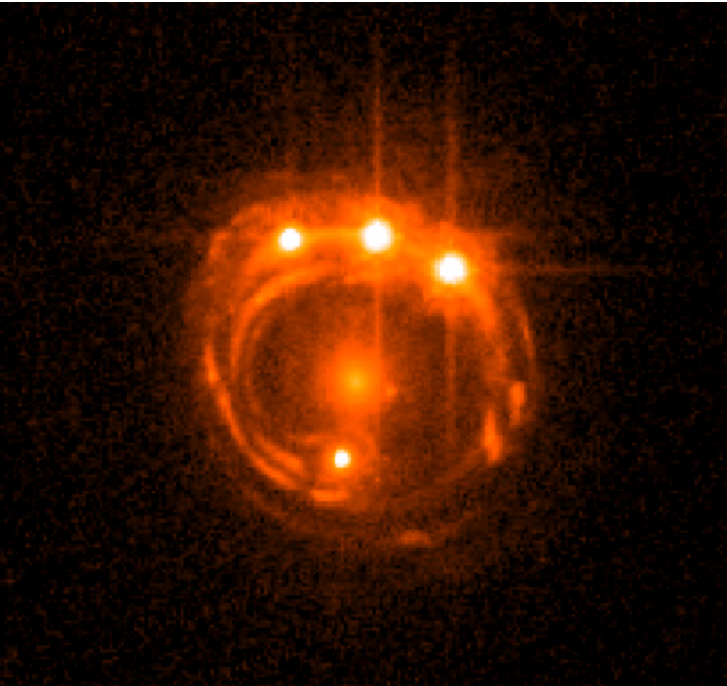
Some of the light passes through a large cluster of galaxies and surrounding dark matter, directly in the line of sight between Earth and the distant galaxy. The dark matter's gravity acts like a lens, bending the incoming light.

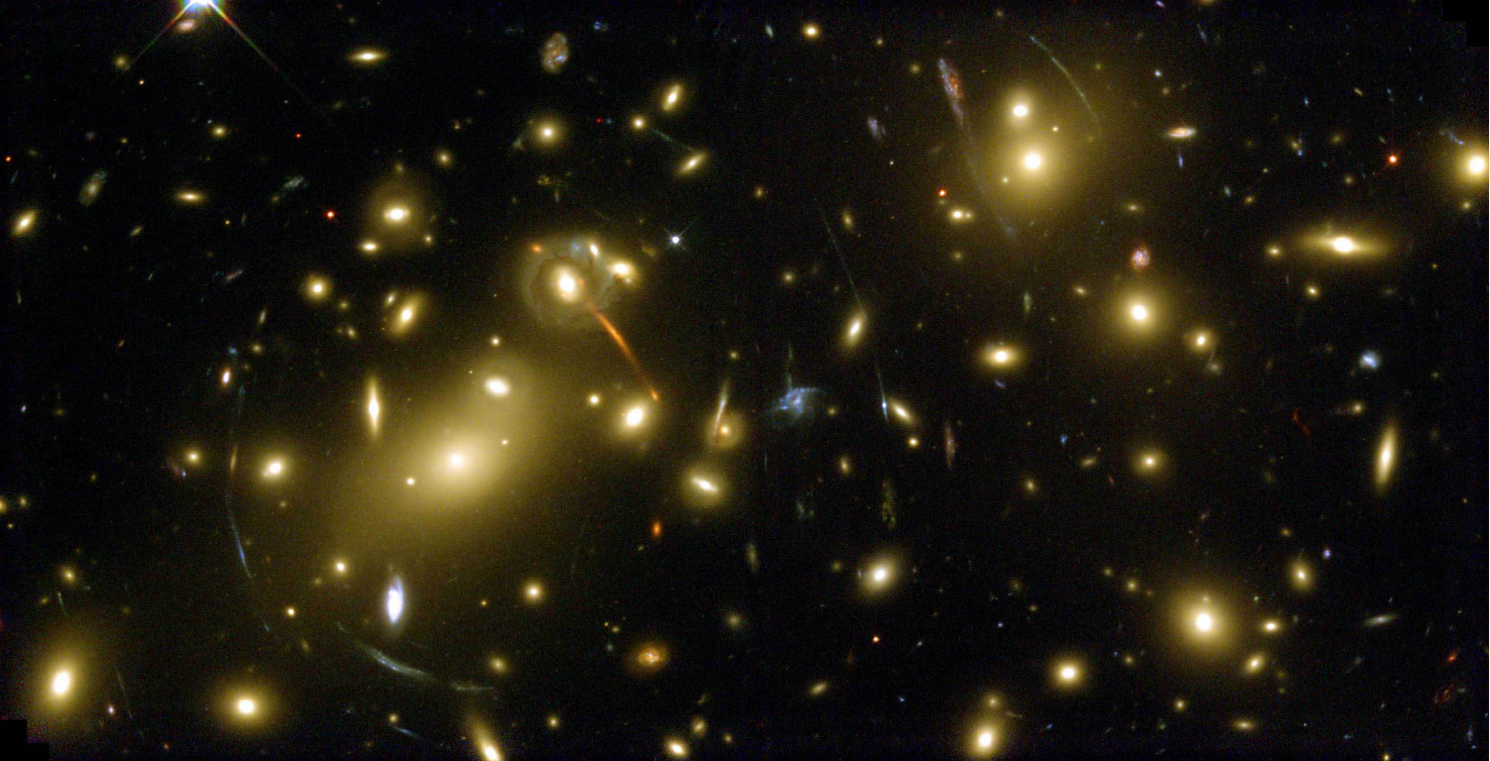
3 Focal Point: Earth

Most of this light is scattered, but some is focused and directed toward Earth. Observers see multiple, distorted images of the background galaxy.

Source:
Bell Labs,
Lucent Technologies

Tony Tyson, Greg Kochanski and
Ian Dell'Antonio
Frank O'Connell and Jim McManus/
The New York Times





The signature of a Neptune-mass planet orbiting a ~ 0.65 Solar Mass star

