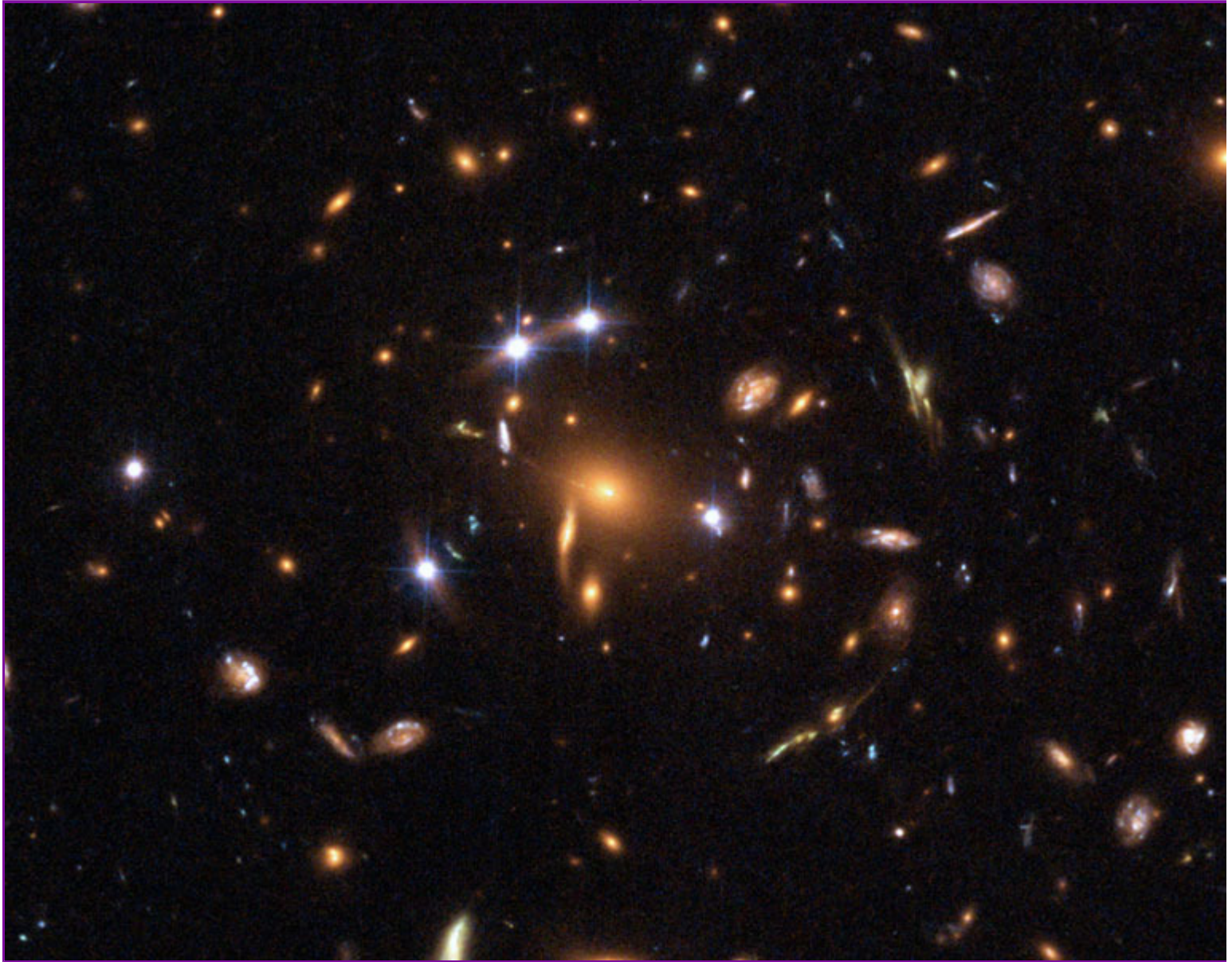


# Astronomy Picture of the Day

[Discover the cosmos!](#) Each day a different image or photograph of our fascinating universe is featured, along with a brief explanation written by a professional astronomer.

2006 May 24



## A Five Quasar Gravitational Lens

**Credit:** [K. Sharon](#) (Tel Aviv U.) and [E. Ofek](#) (Caltech), [ESA](#), [NASA](#)

**Explanation:** What's happening near the center of this cluster of galaxies? At first glance, it appears that several strangely [elongated galaxies](#) and fully five bright quasars exist there. In reality, an entire cluster of galaxies is acting as a [gigantic gravitational lens](#) that distorts and multiply-images bright objects that occur far in the distance. The five bright white points near the cluster center are actually images of a single distant [quasar](#). This [Hubble Space Telescope](#) image is so detailed that even the [host galaxy](#) surrounding the quasar is visible. [Close inspection](#) of the [above image](#) will reveal that the arced galaxies at 2 and 4 o'clock are actually [gravitationally lensed](#) images of the same galaxy. A third image of that galaxy [can be found](#) at about 10 o'clock from the cluster center. Serendipitously, numerous [strange and distant galaxies](#) dot the above image like [colorful jewels](#). The [cluster of galaxy](#) that acts as the huge gravitational lens is cataloged as SDSS J1004+4112 and lies about 7 billion [light years](#) distant toward the [constellation](#) of [Leo Minor](#).

**Tomorrow's picture:** open space

---

[<](#) | [Archive](#) | [Index](#) | [Search](#) | [Calendar](#) | [Glossary](#) | [Education](#) | [About APOD](#) | [Discuss](#) | [>](#)

---

**Authors & editors:** [Robert Nemiroff \(MTU\)](#) & [Jerry Bonnell \(USRA\)](#)  
[NASA Web Site Statements, Warnings, and Disclaimers](#)  
**NASA Official:** Jay Norris. [Specific rights apply.](#)  
**A service of:** [EUD](#) at [NASA / GSFC](#)  
& [Michigan Tech. U.](#)