

# Gargantuan Galaxy packs more than 2 quadrillion suns

Known as the “Big one” to the Spanish, the Monster “El Gordo” galaxy cluster (ACT-CL J0102-4915) is recognized by the 2014 *Guinness World Book of Records* (Page 30) as the largest distant galaxy cluster to have been discovered.

At seven billion light years from earth, it took NASA’s Chandra X-ray Observatory and European Southern Observatory’s very large telescope to discover it.

The cluster has a mass about two quadrillion (that’s two followed by 15 zeroes) times that of our sun leaving astronomers from all camps baffled.

Professor Felipe Menanteau, of the Department of Astronomy from University of Illinois (at Urbana-Champaign) who led a study on



Emily Morse 14, brings her telescope to the Trek Center.



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El Gordo stated, “this cluster is the most massive, the hottest, and gives off the most X-rays of any known cluster at this distance or beyond.”

To put it into perspective, El Gordo is 3,000 times more massive than our home galaxy of the Milky Way which boasts more than 125,000 light years in length according to a Hubble Telescope webpage.

#### **Sky watch for the next month:**

- Mars and mercury set with near new moon and sun — On Tuesday, May 19 look NWW around 8 p.m. As the sun sets, the moon has mars next to it above the sun while mercury is above. All are naked eye objects.
- Venus glows all month long — If you’re wondering what that bright star is after sunset in the west, it is venus. Blazing with an average magnitude of -4.0 it can be near blinding through binos but makes a great photo against the Rocky Mountains at sunset.
- Saturn at opposition — On Saturday, May 23 look SEE after 8 p.m. as saturn rises with a magnitude of 0.0. While you can see it all night with the naked eye, the rings titling towards earth at 24 degrees are visible through good binos or scope.
- Eta Aquarids meteor shower — Caused by comet 1P Halley it shoots 10 to 20 meteors per hour before dawn peaking on May 5-7. The waning gibbous moon will reduce visibility even though it’s in the opposite direction. Prime viewing is SEE around 4 a.m.

#### **Public Events for the next month:**

Monthly Public Stargazing at the Trek Center. Mark down Friday, May 8 at 7:30 p.m. on your calendar and join us at the Trek Center for the monthly Star Gazing. Short indoor presentation on “Summer stars and Constellations” and then we’ll check them out on our 11-inch telescope outside with much more. Take pictures with your smartphone through our scope and share with other participants. Refreshment provided, all welcome and no charge. Held the second Friday monthly at 7:30 p.m.



Photos by Neel Roberts

Larry McNish-RASC Calgary webmaster (left) adjusts his telescope while Karl Ivarson Jr. aims the 11-inch Celestron.

For further information, contact the Trek center at 403-485-2994 or online at: [www.vulcantourism.com](http://www.vulcantourism.com).

Happy Victoria long weekend and warmer days.

Neel Roberts is a member of the Calgary chapter of the Royal Astronomical Society of Canada—the nation’s leading astronomy club founded in 1849 with more than 4,000 members and 29 centers across Canada. Neel welcomes your questions and comments at 403-560-6574 or e-mail: [Neel\\_Roberts@ptccanada.com](mailto:Neel_Roberts@ptccanada.com). The members meet the second Friday monthly at the Trek Center at 7:30 p.m. and you can find out about membership at [www.calgary.rasc.ca](http://www.calgary.rasc.ca).