

Saturn Is Back

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Our local sky this month showcases what is arguably the most spectacular astronomical object in our solar system. As dusk falls, sky gazers who cast their eyes to the eastern horizon will spy the bright, unblinking, cream-colored point of light that we call Saturn, the only planet currently visible as darkness falls.

The most distant of the five naked-eye planets known to the ancients, Saturn is also the second largest planet in our solar system. But size alone isn't what makes Saturn such a popular object to observe. It is the incredible ring system surrounding the planet that draws admiring comments from all who have access to telescopes of even modest size. In early April, Saturn reached peak visibility as it and Earth came within 800 million miles of each other, closer than at any other time this year.

Due to its size of about 75,000 miles in diameter, almost 9.5 times the diameter of the Earth, observers don't require a large telescope to be entranced with the view. In fact, even binoculars of medium magnification will provide an inkling of the magnificence of the planet. But to truly enjoy the planet and its awesome rings, a telescope of modest aperture is advised.

Through a telescope eyepiece there are a myriad of features to discover. In recent months, astronomers have announced the presence of bright transient storms in Saturn's upper atmosphere. Due to the rapid rotation of Saturn, these pale storms race around the planet in little more than 10 hours, allowing an opportunity to glimpse a storm on any clear evening. But the rings always capture center stage for observers of Saturn.

Saturn has the only complete set of rings in the solar system. The probable product of a shattered moon that was crushed by Saturn's immense gravity, the rings extend from just a few thousands of miles above the cloud tops to a total width of about 150,000 miles, yet the average thickness is only about 3,000 feet! The rings are thought to consist of countless small water-ice particles, ranging in size from small pebbles to chunks the size of a building. Even telescopes of modest size reveal a dark gap between the two brightest ring structures. This gap, named the Cassini Division for its discoverer, Giovanni Cassini, is thought to result from gravitational effects of nearby moons.

While Saturn boasts a retinue of over 60 moons, the star of the show is Titan, the second largest moon in the solar system. Orbiting Saturn once every 16 days, observers can track it nightly as it seems to swing back and forth across the planet like a pendulum.

To learn more about Saturn and its magnificent rings you are invited to visit the Cameron Park Rotary Community Observatory to observe Saturn through one of our large telescopes and talk to our knowledgeable Docent staff. Admission is

free, but the view is priceless. For information regarding location and visiting hours go to www.communityobservatory.com.