

# **In their closest alignment in 800 years, Jupiter and Saturn will create a wonder: A Christmas Star**

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This is Jupiter's Great Red Spot in 2000 as seen by NASA's Cassini orbiter.  
Credit: NASA/JPL/Space Science Institute

The lousiest year in living memory will end with an offering of heavenly wonder: a Christmas Star.

It's actually the alignment of two planets—Jupiter and Saturn—which happens every 20 years or so. But it's not always in December and it's been nearly 800 years—we're talking Middle Ages—since they got this close. Technically, the two largest planets in our solar system will still be hundreds of millions of miles apart. But Dec. 21, from our vantage point, they'll look like they're nearly touching, creating a radiant point of light that's being dubbed the Christmas Star, or Star of Bethlehem, for obvious reasons.

Making it even more special: Dec. 21 also marks the [winter solstice](#)—the longest night of the year, the tipping point where daylight once again starts gaining ground on darkness.

Gotta love the symbolism.

"A little bit of cosmic perspective," said Justin Mason, director of Old Dominion University's Pretlow Planetarium. Not to mention spiritual—a page out of the Bible, telling of an unusual star that led the wise men to the baby Jesus.

Astronomers have long theorized that the nativity star might have really been an alignment, known as a conjunction. Mason says a rare conjunction of Jupiter, Venus and a bright star named Regulus occurred around 2 B.C.

Even while the forces directing our universe remain full of mystery, planetary orbits are now predictable.

The last humans to witness Jupiter and Saturn get this neighborly lived in 1226, but the gas giants will stage another exceptional show just 60 years from now, in March 2080.

"Sometimes with [celestial mechanics](#)," Mason explained, "things happen

close together a couple of times and then that pairing won't happen again for a long, long time."

At least 20-are-you-kiddin'-me-20 will wrap up with a special bow.

A miracle or merely astrophysics. A light at the end of a long, dark tunnel.

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