

Faint Reflection: Blue Horsehead Nebula shy's away from spotlight

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The Blue Horsehead Nebula is a faint reflection nebula located 420 light years away in the constellation Scorpius and is 40 light years across.

Carlos Rotellar

Next month we celebrate horses in our state with the Kentucky Derby.

The sky joins us in this celebration with the Blue Horsehead Nebula.

The Blue Horsehead Nebula is a faint reflection nebula located 420 light years away in the constellation Scorpius and is 40 light years across.

A reflection nebula does not emit any light of its own, instead the light from nearby stars illuminate the dust and molecules of the clouds around them. The size of the nebula is determined by the brightness of the illuminating star. In the picture we can see the bright star Nu Scorpius (Jabbah) illuminating, in blue, the area of the horse's eye. The blue color is due to the blue light of the star shining on the dust molecules of the cloud.

Jabbah, means forehead in this case of the of the scorpion constellation. It is a blue subgiant star, which is actually, a multistar system where in addition to the main central star there is at least one orbiting star.

Up and to the right we see a second blue reflection nebula where the ear of the horse is located. That is known as IC 4601 and contains two binary star systems reflecting their blue light on the cosmic dust.

This image is the final result of 108 photos taken during nine hours and throughout the course of four nights.

The Blue Horsehead Nebula should not be confused with the Horsehead Nebula, which is a dark nebula located in the constellation Orion, which we discussed during the month of March last year.

– Dr. Carlos Rotellar is a Bowling Green nephrologist who has had an interest in astrophotography and has been taking images of the universe from his driveway for several years. Website: Skyastrophotos.com.