Rare lunar eclipse to entertain millions on Sunday night

On Sunday night people from North America to Europe, Africa and the Central Pacific will be treated to a rare spectacle - a combination of a “super moon,” a ”blood moon” and a “wolf moon.”

Paul Hayne, an assistant professor of astrophysical and planetary sciences at CU Boulder, explains what is so unique about this rare celestial event.

CUT 1 “This one is the ‘Super Blood Wolf Eclipse.’ And that is not a technical term at all but let’s break it down. The super part of it is telling us that the moon is going to be super-sized. So it’ll be bigger in the sky than the moon normally is. (:16) And the reason for that is that the moon has an orbit around the Earth that brings it closer to and away from the Earth at different times in its orbit. And so this eclipse happens to occur during the point in the moon’s orbit when it’s closest to the Earth.” (:31)

He says the blood name is due to the moon glowing red at total eclipse. And that’s because the only light the moon gets is from sunlight reflecting off the Earth and the Earth’s atmosphere.

CUT 2 “During a total lunar eclipse the moon appears red and that’s because the light is being refracted through the atmosphere of Earth. (:08) And the same reason that a sunset appears red, which is that the light is scattered through the atmosphere of Earth causes the light hitting the moon during the total lunar eclipse to also appear red.” (:21)

When it comes to the ‘Wolf Moon’ Hayne says according to folklore when a full moon appeared in January, wolves howled outside the villages in hunger.

CUT 3 “And the wolf part of it is related to the mythology around a full moon during January. And the idea is that in ancient times when you had a full moon during January - the coldest part of the year - the wolves would gather outside the village and howl at the full moon. (:21) That’s why it’s called a wolf moon. So we’ve got the Super Blood Wolf Moon.” (:27)

Hayne says the eclipse should be viewable almost anywhere in the United States given good weather. In Colorado, the total lunar eclipse, when the moon turns a burnt orange to red color, will begin at 9:41 p.m. Mountain time and last for about an hour, says Hayne. He says a great thing about a lunar eclipse is that all you need are your eyes and maybe a good pair of binoculars if you have them.

CUT 4 “You don’t need any special equipment to see a lunar eclipse. It won’t blind you. You can look at it with your naked eye. If you have a pair of binoculars, that’s even better. You’ll get a very nice view of surface features on the moon. Craters and the maurya, which are lava flows on th near side of the moon. (:17) And you’ll see that nice red color as the moon goes into the total eclipse. If you have a backyard telescope - even better. You can start to make out details of craters and other smaller features on the surface of the moon.”(:30)

How unique is this eclipse? Don’t miss it because this will be the last total eclipse until 2021.