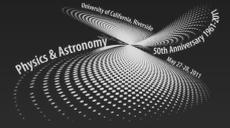


TOTAL LUNAR ECLIPSE

September 27, 2015 - UC Riverside's Parking Lot 30 - Free event/parking

On September 27, 2015, the American continent will witness a total lunar eclipse, the last in three years. Visible with the unaided eye and harmless, the umbral phase of the eclipse will have already started in California when the Moon is rising above the horizon and will end at 9:27 P.M.



A total lunar eclipse happens when our planet gets between the Sun and the Moon, fully covering our Moon with its casted circular shadow. The light from the Sun goes through the edge of Earth's atmosphere, acting much in the way light does during a sunset or sunrise. Therefore coming out with a reddish hue which illuminates our satellite, changing its color as it runs through the Earth's shadow. A total eclipse can only happen during a full Moon.



The penumbral phase of the eclipse, which happens at the beginning and end of the eclipse, is when a very dim shadow of the Earth is cast over the Moon and is barely detectable with our unaided eye. The umbral phase of the eclipse takes place when the darkest shadow is cast and is clearly visible through the naked eye. You can see how the Moon changes from bright to dark to a red hue within a couple of hours and then back again. The *Danjon Scale* serves as a guide to determine the Moon's color during the maximum phase:

0 is assigned to a very dark totality, with the Moon almost invisible;

1 is equivalent to a dark, gray or brownish coloration, with details distinguishable with difficulty;

2 is assigned to a deep red or rust-colored totality, very dark central shadow, with bright outer edge;

3 describes a brick-red totality, with a bright or yellow rim;

4 means a very bright copper-red or orange totality took place, with a bluish & very bright rim.

Information: www.astro.ucr.edu

Umbral eclipse times for Riverside, CA (in PDT)

Umbral starts: 6:07 PM*	Totality starts: 7:11PM*	Maximum: 7:48 PM	End of totality 8:23 PM	End of umbral: 9:27 PM
----------------------------	-----------------------------	---------------------	----------------------------	---------------------------

* Moon under the horizon



Photo: Johannes Schedler