**TRANSIT OF MERCURY**

**DO NOT LOOK DIRECTLY AT THE SUN! LEARN HERE HOW TO SAFELY OBSERVE THIS ASTRONOMICAL EVENT**

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**What is the transit of Mercury?**

Mercury is an “inferior planet,” meaning it is closer to the Sun than the Earth. It will go in front of the Sun rather frequently, but due to orbital tilts, it is usually just above or below the Sun from our perspective. Every once in a while we line up just right to see Mercury pass directly in front of the Sun and this phenomena is a transit. The only other planet that we can see transit in front of the Sun is Venus.

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**What will we see?**

We will see Mercury as a small dot moving slowly across the front of the Sun. See the image on the next page for the path Mercury will take across the Sun on May 9th, marked in Universal Time, (similar to Greenwich Mean Time).

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**How long will the transit of Mercury last?**

The transit of Mercury will start at 7:13 a.m. EDT and will end at 2:42 p.m. EDT on May 9, 2016. The entire event will be visible from Michigan. If you come to Abrams Planetarium, however, we will not set up telescopes until 8:30 a.m. when the Sun is higher and easier to observe. We’ve got plenty of time to watch it though!

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**How often does the transit of Mercury happen?**

Mercury is a speedy little planet and whips around the Sun faster than any other planet. We see usually around 13 of these transits a century. The next transit of Mercury will be November 11, 2019. After that, the next one will not be until November 13, 2032. That
said, you have to be on the day side of the Earth to see the transit, so depending on where you are in the world, you may not be able to see every transit. Mercury transits are more frequent than Venus transits. The last transit of Venus was in 2012. We won’t see another one until 2117!

**You can’t look at the Sun without hurting your eyes! How can we safely observe the Sun?**

We have two pieces of specialized equipment that will allow us to safely observe the Sun directly. The first is a Sunspotter, which uses mirrors to reflect an image of the Sun onto a piece of paper. The second is our Coronado solar telescope. It has a special Hydrogen Alpha filter on the telescope that blocks out most sunlight except for a very specific wavelength produced by hydrogen gas in the sun. It allows us to safely observe the Sun without hurting our eyes.

A third way you can observe the Sun is with solar eclipse glasses. They are very heavily tinted glasses you can wear to safely look at the Sun. However, Mercury will be too small to see without a telescope.

**What if it’s cloudy or we can’t get the right equipment?**

If you come to the Abrams Planetarium, we will put up a simulation of the transit in real time so you can at least “observe it happening.”

Additionally, the online observatory Slooh will be running a livestream.

http://livestream.com/slooh/events/4520741

**SAFELY Observe Anywhere with Eclipse Glasses**

You can buy glasses that will allow you to safely observe the sun without our equipment. They are available at our gift counter or these places on the web:

Amazon.com
Rainbowsymphony.com
eclipse2017.org

NOTE: Mercury will be too small to see with just these, you will need a telescope to see the planet.