

## Astronomers Capture the Unseeable: A Black Hole

Museum's Astronomer Dr. Doug Roberts Praises Collaboration of EHT Colleagues



The first image of a black hole, from the galaxy Messier 87. Credit: Event Horizon Telescope Collaboration, via National Science Foundation

**Fort Worth, TX** - On Wednesday morning, the National Science Foundation announced they captured the first ever picture of a black hole through two years of computer analysis of observations from a network of radio telescopes called the Event Horizon Telescope (EHT). The image centers on a supermassive black hole and its shadow at the center of a galaxy knows as Messier 87 (M87). The image, which serves as the first direct visual evidence that black holes exist, showcases a central dark region surrounded by a ring of light.

The Fort Worth Museum of Science and History's Chief Technology Officer, Dr. Doug Roberts, is an accomplished astronomer currently doing active research into the black hole at the center of the Milky Way.

Offering insight on today's milestone discovery, Dr. Roberts explains, "We now believe that black holes exist in the centers of most, if not all, galaxies, including our own." Dr. Roberts continues, "Although no light escapes from the black hole itself, the region just outside black hole does emit light as material piles up while flowing into the black hole. The images presented today show that this emission is

effected by the relativistic effect of strongly curved space-time, which results in both a shadow on one side and brighter emission on the other."

Dr. Roberts, who previously worked with astronomers involved in EHT, praised the "unprecedented collaboration" of the EHT's network of radio telescopes, which are spread all over the world. Dr. Roberts elaborates, "These telescopes were coordinated to create a massive telescope needed to make such a precise image. I am excited that this imaging technique has been proven to work to observe the black hole at the center of the distant M87 galaxy, and I look forward to this technique being applied to the black hole at the center of the Milky Way."

Tune into the Museum's Facebook for a live video with Dr. Roberts at 4:30 PM on Wednesday, April 10 to hear more about the black hole image and what it means for future scientific research.

If you would like to schedule an interview with Dr. Roberts, please contact <u>acanipe@fwmsh.org</u>.

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## About the Fort Worth Museum of Science and History

The Museum was established in 1941 and is accredited by the American Alliance of Museums. Anchored by its rich collections, the Museum is dedicated to lifelong learning. It engages guests through creative, vibrant programs and exhibits interpreting science and the history of Texas and the Southwest. The Museum is open daily, except Thanksgiving, Christmas Eve and Christmas Day. For more information, visit <u>www.fortworthmuseum.org</u>