

Deep Space LIVE: Light Speed

Tuesday, September 30, 2010, 8 PM

(Linz, September 27, 2010) Nothing goes faster than light. Light travels 299,792,458 meters—almost 300,000 kilometers, 186,000 miles—in a single second. Light takes no more than 1.3 seconds for the trip between the Moon and Earth. So it's no wonder that precisely measuring this mind-boggling speed confronted science with a tough problem. At the next Deep Space LIVE on Thursday, September 30, 2010, Herbert Raab of the Astronomical Society of Linz will give an account of how scientists finally succeeded in timing the speed of light and explain why this is of such tremendous importance for our modern, technology-driven everyday life.

How Fast is Light?

The first human being to earnestly attempt to answer this question was the “Father of Astronomy,” Galileo Galilei. In 1620, he had signal lanterns set up on two hills several kilometers apart. At his command, they were illuminated. To Galileo's amazement, he was unable to notice a delay between the moment they were lit and the moment each could be seen from the other hill. In other words, the light emitted from Hill A reached the observation post on Hill B more or less instantaneously. Ascertaining how fast light actually does travel thus meant finding out how great a distance is necessary for a delay to be noticeable. Then, once one knows how long light needs to travel a certain distance, it would be possible to compute its speed ...

At the next Deep Space LIVE on Thursday, September 30, 2010 at 8 PM, Herbert Raab of the Astronomical Society of Linz will reveal who finally succeeded in doing this, when and how it was done, and how, over the centuries, scientists have been able to measure the speed of light with increasing accuracy.

Herbert Raab (AT)

Herbert Raab was born in 1969. He is a computer scientist and works as a software developer. Herbert Raab has been interested in astronomy ever since he was a child. He has been actively involved in the Astronomical Society of Linz since 1983 and the group's chairman since 1996.

Deep Space LIVE

The Ars Electronica Center is now hosting a Deep Space LIVE event every Thursday (except holidays) at 8 PM. Each presentation will feature ultra-high-definition imagery in 16x9-meter format and will be accompanied by expert commentary, entertaining stand-up repartee, and musical improvisation. Whether great works from the history of art, space travel, journeys of discovery in the Nanoworld, or a live concert is what you've come to behold, Deep Space LIVE stands for enlightening entertainment amidst breathtaking worlds of imagery. Admission (including an accompanying person) is €2. Holders of a valid Museum ticket are admitted free of charge.

With queries, please contact

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