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## Walk the Solar System, Listen to the Music of the Spheres

Nov. 2 at Wallis Sands Beach

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RYE, N.H. -- When Marty Quinn set the stage for his "Walk Through the Solar System," little did he know that the star performer would be acting up in a big way just in time for the show.

Earlier this week, one of the most powerful solar flares ever recorded erupted on the Sun and hurled its energetic particles toward Earth at two million miles per hour. Such coronal mass ejections are a major component of "space weather" and can disrupt satellites and aircraft communications, pose a risk to astronauts, knock out power stations, create shimmering aurora when they slam into the Earth's magnetosphere (the magnetic shield that surrounds and protects the Earth), and be turned into music.

Quinn's show will feature selections from music he composed using data gathered in Earth's magnetosphere by satellites carrying instruments built at the University of New Hampshire. "Solar Songs," for example, features streams of energetic particles from events similar to the huge solar blast that occurred this past week.

A local musician and computer scientist, Quinn will lead the walk on Sunday, Nov. 2, 2003, from 2 to 4 p.m. at Wallis Sands Beach in Rye. He will use a four-foot replica of the Sun as the center point in a scaled-down solar system. It will take participants one mile to walk the relative distance from our star to Saturn.

"The purpose of the walk," Quinn says, "is to give people the opportunity to personally experience the size of the solar system and the placements of the planets within it - they will become like the space probes we have sent out. I hope that it helps to convey the dynamic nature of the Sun and the intensity of the solar winds."

To further ground the celestial experience, Quinn will play pre-recorded selections of music he created using data collected by satellite instruments built by scientists at UNH's Institute for the Study of Earth, Oceans, and Space (EOS). The composition "Rock Around the Bow Shock" is a computer-generated "sonification" using data obtained during several consecutive passes through the magnetosphere's leading edge or "bow shock" by the four, sister Cluster spacecraft.

"This activity really should help make the public aware of the larger environment that we live in," says Eberhard Möbius of the EOS Space Science Center and the Department of Physics. Möbius is one of several UNH scientists involved with instruments on a host of satellites investigating aspects of the magnetosphere and solar wind, including ACE (Advanced

Composition Explorer) and the Cluster satellites.

Register for the walk by calling 603-659-5239 (leave name and phone number) or by e-mailing [marty@quinnarts.com](mailto:marty@quinnarts.com). Dress warmly, and bring a small notebook to jot down thoughts along the way. Participants will meet at the Wallis Sands Beach parking lot off Route 1A. There is no charge for the walk.

For more information on the sonifications, visit the EOS web site at <http://www-ssg.sr.unh.edu> and click on “Outreach,” then “Music.”