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## 'Sun Rings' shares the music of space

## By CHARLES WARD Copyright 2003 Houston Chronicle

For most people, the music of outer space means the lush film scores of E.T. the Extra-Terrestrial and Star Wars.

But **Don Gurnett**, physics professor at the University of Iowa, knows better -- he's been listening to the real sounds of space for more than four decades.



The Kronos Quartet performs *Sun Rings* in an October 2002 concert, accompanied by images from NASA.

Thanks to him, these sounds -- gathered by the two Voyagers and other NASA spacecraft -- now appear in *Sun Rings*, a multimedia work for string quartet by composer **Terry Riley**. The renowned Kronos Quartet will present the Houston premiere Thursday at the Wortham Theater Center.

The idea for *Sun Rings* came from NASA. Gurnett tutored **David Harrington**, the quartet's first violinist, and the minimalist Riley in his research, providing taped sound samples. (Some can be heard at <a href="https://www-pw.physics.uiowa.edu/space-audio/sounds/sounds.html">www-pw.physics.uiowa.edu/space-audio/sounds/sounds.html</a>.)

Gurnett's career path was forged as a teenager in Iowa when the Soviet Union shocked the United States with the launch of the Sputnik I satellite on Oct. 1, 1957.

As a young scientist at NASA, he heard recordings of "whistlers," sounds produced by lightning in outer space. These were discovered in 1917 but nobody had focused on them. He decided to investigate, building an amplifierlike device to relay the sounds from space to earth -- the antecedent of today's plasma wave receivers.

Space is not a vacuum, Gurnett said. It contains a low-density, ionized gas called plasma, a medium for wave energy. Gurnett's equipment turned those waves into sound.

"When we launched it into space (in 1962) ... we heard things that had never been heard before. That just amazed everybody," Gurnett said.

"I've got a box filled with recordings I've made of virtually (every) planet in the solar system."

Gurnett was very happy with Sun Rings. "To a layman's ear it sounds eerie, out of this world."

In Houston, Kronos will be playing a nine-movement, 80-minute version of *Sun Rings*. A visual backdrop by **Willie Williams** incorporates images from NASA.

The show starts at 8 p.m. Tickets are \$29-\$45 at 713-227-4772.

Gurnett will join Harrington and **Bert Ulrich** of the NASA Art Program for a free pre-performance event at 8 p.m. Wednesday at the University of Houston-Clear Lake, 2700 Bay Area Blvd. For information, call 713-632-8102.