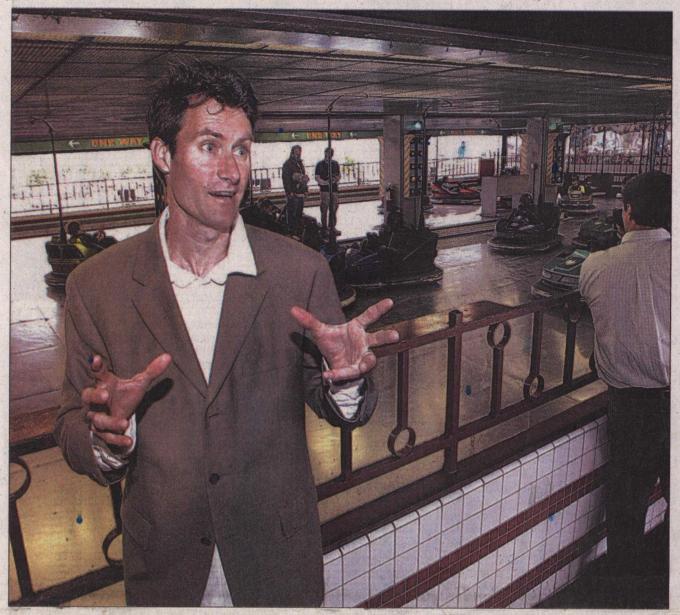
## **KEEPING SCIENCE SIMPLE**

'It is not unlike a bumper car jam. The drivers represent lighter electrons that jump from atom to atom, which were represented by the cars.'

GREG LAUGHLIN, explaining how planetary liquids form



Greg Laughlin, a UCSC professor of astronomy and astrophysics, uses the Boardwalk bumper cars to illustrate atomic behavior in Jupiter's molten core for an episode of History channel's 'The Universe' series. The show's film crew spent Thursday morning at the amusement park shooting local Boys and Girls Club members driving the bumper cars.

## Bumper Car Ride Makes History

Board wolf History channel films scenes for 'The Universe' at Boardwalk 7.24.09

By KELLY O'CONNOR

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SANTA CRUZ — Bumper cars are supposed to bump,

That wasn't the goal for 15 kids from the Boys and Girls Club who hopped aboard the Speed Bump ride at the Boardwalk on Thursday morning.

They were simulating molecules moving in liquid metal for an episode in the fourth season of "The Universe," which will air this fall on the History channel.

"It was really fun to ride before anyone got there," said Isaias Pio, 11.. "But the best part was being on TV."

Flight 33 Production Co. filmed the ninth episode of the 10-episode series at the Boardwalk using bumper cars as an analogy for liquid on other planets.



DAN COYRO/SENTINEL

A History channel crew videotapes local kids on the Boardwalk bumper cars Thursday for an upcoming episode of 'The Universe.'

> worked at all," said the director and directed to switch cars. They switched writer Savas Georgalis. "The concept worked well for general under-

standing."

UC Santa Cruz astronomy professor Greg Laughlin came up with the concept of using Boardwalk bumper cars as a visual to mimic how planetary liquids form. Laughlin, an expert on extrasolar planetary liquid, hosted the episode.

The episode was about a giant ocean of liquid hydrogen in the center of Jupiter, Laughlin said. The hydrogen stays liquid because the atoms bump into one another, creating an atomic flow.

'It is not unlike a bumper car jam," Laughlin said. "The drivers represent lighter electrons that jump from atom to atom, which were represented by the cars."

"Without the kids it wouldn't have out of their seats when they were

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when they bumped into each other, showing how the electrons — the kids — flow through the atoms — the cars — and keep the hydrogen flowing.

"When we switched everything was crazy," said Isaias, who rode the Speed Bumps ride two weeks ago for fun. "It wasn't like riding normal bumper cars."

Pio understood the general concept of liquid met-

al when the demonstration was over, which was the primary goal of the exercise.

"My goal was to present the information in a visually appealing way," Laughlin said. "I also wanted to bring economy and publicity to Santa Cruz — so I thought the Boardwalk would work great."

This isn't the first time Laughlin has drawn film crews to Santa Cruz County.

The History Channel first approached him in August 2007, to demonstrate violent weather patterns on extrasolar planets, or planets outside our solar system. He used the steam boiler at Roaring Camp Railroads to show how the combination of pressure and heat created extreme conditions on other planets.

In June, Laughlin brought the History Channel to Pizza My Heart on Pacific Avenue, using the spinning pizza dough as a metaphor to show how planetary disks are expanded because of opposing gravitational pulls.

The pizza episode will air in the fourth season of "The Universe," along with the bumper car episode, giving Santa Cruz public exposure and helping science stay simple.

"Everybody comes out ahead," Laughlin said. "It feels good that a diverse collection of interests can come together and everybody wins."

The Flight 33 Production company donated \$1,000 to the Boys and Girls Club, which was worth every penny, Georgalis said.

"The location, access and people gave us a great value," Georgalis said. "We would come back here to film in a heartbeat."