

Federal Court in Hawaii May Save the Earth

By Mark Reid

Out of concern that a tiny black hole might swallow the Earth, Walter L. Wagner and Luis Sancho have filed a lawsuit in Federal District Court in Honolulu seeking a restraining order prohibiting the European Center for Nuclear Research, or CERN, from proceeding with plans to operate a giant particle accelerator this summer.

Though this claim might seem ridiculous to the casual observer, it touches upon an important topic that has become increasingly significant in recent years – namely, how to assess the risk involved in groundbreaking experiments and the decision-making process of whether or not to proceed.

The particle accelerator at issue, called the Large Hadron Collider, has been created by physicists around the world over the past 14 years at a cost of \$8 billion. It is designed to “fire up protons to energies of seven trillion electron volts” and then collide them together. The collision will “recreate energies and conditions last seen a trillionth of a second after the Big Bang.” The purpose of the project is to search for clues related to the nature of mass and natural forces in the universe.

The concerns of Mr. Sancho and Mr. Wagner stem from new worries about black holes, which, according to some variations of string theory, might appear at the collider. Lisa Randall, a Harvard physicist whose work has helped promulgate such speculations, does not believe the collider will produce any black holes.

While CERN and the particle accelerator itself are located in Geneva, Switzerland, other defendants named in the lawsuit include the U.S. Department of Energy and the National Science Foundation, which help supply and maintain giant superconducting magnets utilized by the collider. If the federal court in Hawaii grants the restraining order, the project would in effect be shut down.

Though the ramifications of Wagner and Sancho’s concerns are catastrophic on a galactic scale, most physicists in and out of CERN have concluded there is virtually no risk of anything happening. Nevertheless, the lawsuit itself indeed points to one of the great dilemmas on the horizon: rolling the cosmic dice. As science and technology evolve at an exponential rate, who decides what is and what isn’t worth the risk, and how is that decision made?

Source:

Asking a Judge to Save the World, and Maybe a Whole Lot More,
http://www.nytimes.com/2008/03/29/science/29collider.html?_r=1&ref=science&oref=slogin
(last visited March 29, 2008).