

CZYTAMY PO ANGIELSKU**George Smoot Wins Nobel Prize  
in Physics 2006**

Smoot was one of the first astrophysicists to devise ways of conducting experiments that produce data and information about the early universe.

“People have contemplated the origin and evolution of the universe since before the time of Aristotle”, he said. “Although cosmology has been around since the time of the ancients, historically it has been dominated by theory and speculation. Very recently, the era of speculation has given way to a time of science. The advance of knowledge and of scientific ingenuity means that at long last, we can actually test our theories.”

To understand how our universe was created, Smoot focused on clues hidden in the extremely faint heat left over from the Big Bang. This relic radiant energy or cosmic microwave background radiation (CMB) has been called a “message from the beginning of time”.

According to theory, all space began to expand at the moment of the Big Bang and was pervaded with the physical contents produced by the leviathan explosion, including the relic CMB radiation. To this day, CMB radiation saturates all of space throughout the universe. In fact, at any given instant, every cubic meter of space is bathed in millions of photons of CMB radiation zipping along at the speed of light.

In 1976, Smoot was a key member of the team that found startling evidence in the CMB which contradicted the prevailing scientific view that galaxies are spread uniformly throughout the universe. Instead, the data revealed that vast regions of space are virtually devoid of galaxies while elsewhere, billions of galaxies are clustered together. These findings met with strong skepticism but a second set of experiments by Smoot and colleagues confirmed it.

<http://www.lbl.gov/Publications/Nobel/>

**Dictionary:**

**early universe** – wczesny Wszechświat

**scientific ingenuity** – pomysłowość naukowa

**relic radiant energy** – energia promieniowania relikowego

**cosmic microwave background** – kosmiczne mikrofalowe promieniowanie tła

**relic** – pozostałość

**galaxies are clustered** – galaktyki zgrupowane