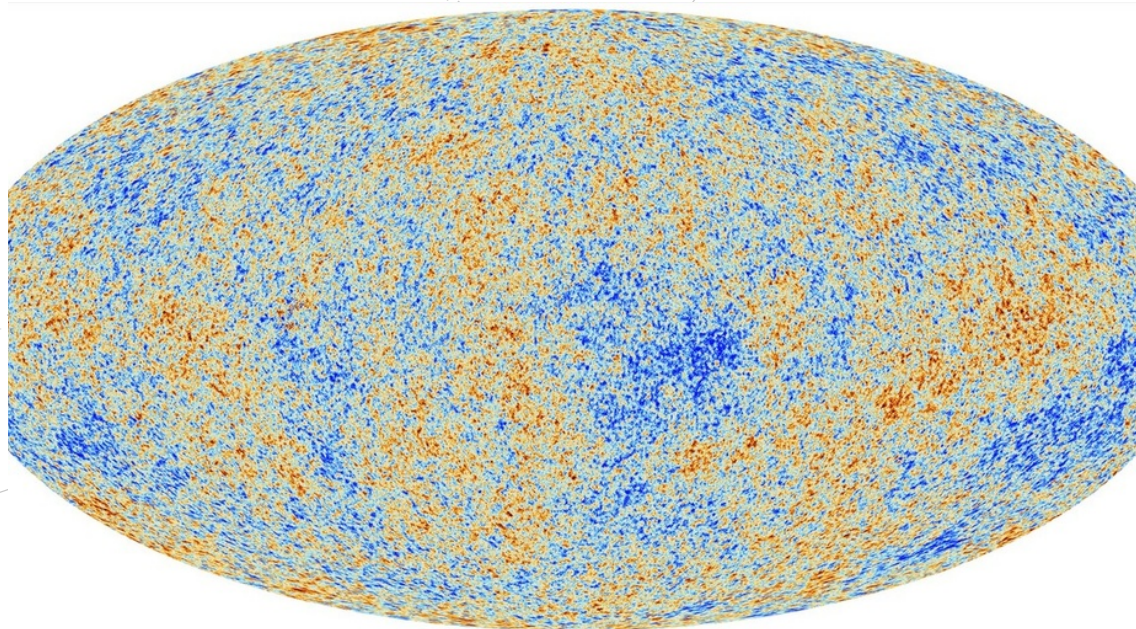


# PŘEČTĚTE SI SÓLOKAPRY Z VESMÍRU

## ZPRÁVY Z CELÉHO VESMÍRU



### It All Started with a Big Bang... But When?

22. března 2013

Ever imagined travelling back to the beginning of time or seeing the entire Universe? Well, you can do all of that just by looking at this picture! The space telescope, Planck, has been observing the oldest light in the world, from just after the beginning of the Universe! These observations have now been collected into this map, showing the shape of the Universe when it was very young. The blue and red splotches you can see are the ancient 'seeds' of today's stars and galaxies!

Most astronomers believe the Universe began with a 'Big Bang' 13.7 billion years ago. Before this, the entire Universe was squashed inside a bubble thousands of times smaller than a pinhead. Then, it suddenly exploded, and the Universe we know was born. The faint glow of light collected by Planck is called cosmic microwave background radiation. It fills the whole Universe, surrounding Earth in every direction. Some call it an 'echo of the Big Bang', because it was the first light to exist in the Universe after its explosive beginning.

Scientists now say the blotchy pattern on this map is solid proof of the Big Bang theory, only it actually happened 13.8 billion years ago. This means that the Universe is 80 million years older than we believed! On top of this spectacular new finding, the map contains some curious mysteries: Why are there more hot, red splotches in the bottom half of the map? What caused the big cold spot in the middle? Maybe, one day, you will be the one to solve these mysteries!

▲ COOL FACT!

Cosmic microwave background radiation was blisteringly hot when it was first created, but over the last 13 billion years, it has cooled dramatically. Today, it is just 2.7 degrees above absolute zero — the coldest temperature possible ( $-273^{\circ}\text{C}$ ).