

"Rock the Solar System"

A talk on Planetary Geology

By Stephanie Johnston.

The technology behind the study of other planetary bodies has increased exponentially over the last 50 years. New tools include spectroscopic remote sensing, rovers and high-resolution satellite images. This technology allows us to remotely learn about the mineralogy and geological structure of different planets. Planetary Geology pulls from many different disciplines including astronomy, mineralogy, geochemistry and geophysics in order to decipher the geologic conditions of bodies within our solar system.

We can better study other planets by applying the knowledge and skills obtained from the study of the Earth. Likewise, uncovering the history of other planets can teach us more about our planet Earth. Other planetary bodies offer humans a vast array of other resources such as water, alternative energy and Platinum Group Metals. Images from my research of Venus show complex rifting that looks similar to, but is different from Earth's rift systems.

This talk we will explore differences and similarities between earth and our sister planet, Venus. We will also look at the ongoing missions on Mars and the current motivation to explore our solar system. You will see exciting heavenly bodies and declassified NASA images of Venus and Mars.

Biography

Stephanie Johnston has a BS in Geology from Centenary College of Louisiana. At Centenary she participated in research on the origins of the Yellowstone hotspot.

Her love of the stars and planets started at a very early age. She attended Astronomical Society meetings and got mesmerized by the photos of space. She has interned at NASA's Jet Propulsion Laboratory in Pasadena, California where she researched the geologic feature on Venus.

After graduating from Centenary, Stephanie went to Kenya to do volunteer in Nairobi and Kisii to work with orphans and AIDS relief. She learned Kiswahili, the native language so that she could be effective in her work.

Stephanie is currently working at Hill Geophysical Consulting doing geophysical work off shore Nova Scotia, Canada, and the Gulf coast. Stephanie will be leaving Shreveport this summer to pursue her quest for a PhD in Planetary sciences.