

Erik Asphaug, Professor
Earth and Planetary Sciences Department

Dr. Asphaug's scientific research includes the origin and evolution of asteroids and comets, planetary impact processes ranging from small craters on the Moon to giant impacts in the final stages of planet formation, and the evolution of landforms on Mars.

He received my Ph.D. from the University of Arizona's Department of Planetary Science in July 1993.

He began as Associate Researcher in Earth Sciences in 1998. He was hired as Assistant Professor in 2000, and was promoted to Professor in 2006. The department is now known as Earth and Planetary Sciences.

One of the most unexpected thrills he has as a faculty member was to help start a research program in Mars surface processes. This is not his research forte, but it is what drew him into planetary sciences from the beginning, and the topic has always seemed to be a very natural fit to UCSC's expertise, what with its arctic geomorphologists and astronomers and experts in remote sensing. He is better noted for his work on asteroids and comets, and giant planetary collisions. He recently led a research effort introducing the concept of "hit and run" planetary collisions (Asphaug et al., Nature 2006) where Moon- to Earth-sized planets hit one another and rebound, with the smaller one being transformed into a chain of smaller planets which might explain a number of meteoritical mysteries, and may even explain the curiously high density of Mercury. Right now he is writing a textbook on asteroids, and that is how he plans to spend his sabbatical.

He has benefited from numerous detailed discussions, off and on, with Doug Lin and Peter Bodenheimer, related to how giant planetary collisions affect the process of planetary accretion. Asteroids and comets are near and dear to my heart, and interestingly some of the biggest astronomical glass today is being built to look for small near-Earth asteroids, and those telescopes will bring a treasure trove of information to astronomers interested in all kinds of transient activity such as supernova explosions.

Dr. Asphaug won the Urey Prize of the American Astronomical Society's Division of Planetary Sciences in 1998. Asteroid 7939 Asphaug was named in his honor for his research into asteroid geophysical properties.