The formation and evolution of the solar system can be investigated through studies of the primitive bodies: comets, asteroids, meteorites, and the impact craters they produce. NASA’s NEAR/Shoemaker mission, which was led by APL, performed intensive investigations of the asteroid Eros (upper left), including the first landing on a primitive body. APL scientists are studying fragmenting comets (like 73P/Schwassmann-Wachmann3 at the upper right) to probe the chemical composition of the deep interiors of cometary nuclei. Meteorites collected on the surface of the Earth (like the Martian meteorite ALH 84001 shown on the left-hand side under the magnifying glass) can be subjected to detailed laboratory analysis to reveal chemical and physical details about the parent body. Impact craters (like the colorized gravity map of the Chesapeake Bay basin and the crater produced by a nuclear explosion at the Nevada Test Site) are studied to understand better how collisions affect the evolution of planets and their atmospheres. APL scientists report on all these subjects in the articles published in this issue.