Sir Isaac Newton
Space and time are absolute or fixed entities. Gravity is a force that acts instantaneously between objects at a distance, causing them to attract one another.

Albert Einstein
Space and time are relative entities, interwoven into a spacetime fabric whose curvature we call gravity. Spacetime tells matter how to move, and matter tells spacetime how to curve.

GP-B Co-Founder, Bill Fairbank, once remarked: "No mission could be simpler than GP-B; it’s just a star, a telescope and a spinning sphere." However, it took over four decades to develop all the cutting-edge technologies necessary to carry out this "simple" experiment.

How can one monitor the spin-axis orientation of a near-perfect spherical gyroscope without any physical marker showing the location of the spin axis on the gyro rotor? The answer lies in superconductivity. Predicted by physicist Fritz London in 1948, and most fortunate for GP-B, a spinning superconductor develops a magnetic moment exactly aligned with its spin axis.

GP-B's 650-gallon dewar kept the science instrument inside the probe at a cryogenic temperature (2.3K) for 17.3 months and also provided the thruster propellant for precision attitude and translation control.

The success of GP-B required extraordinary collaboration between the Physics and Aero-Astro departments at Stanford and between Stanford, NASA, and Lockheed Martin. In 2005, NASA gave a Group Achievement Award to the entire GP-B team.