Gravitational waves (GWs) are distortions in the fabric of space and time, predicted by Einstein's General Theory of Relativity. By viewing the universe in GWs, we will be able to directly observe events like black hole collisions that are hidden from conventional electromagnetic-based (e.g., optical or radio) astronomy. In addition, if past experience with infrared, radio wave, gravitational?wave observatories (e.g., LIGO), which uses an L-shaped interferometer to measure changes smaller than a proton in the difference between the 2.5-mile lengths of its "arms". RIT researchers work within the Laser Interferometer Gravitational-Wave Observatory (LIGO) and other gravitational-wave antenna projects.

The purpose of LSC is to exchange information about LISA with the wider science community.

The LISA international Science Community (LISC) is a planned ESA space-based gravitational?wave observatory that would allow us to detect gravitational waves from massive black?hole mergers in the centers of galaxies, from the ultra?compact binary systems in our own Galaxy and from many other sources. The purpose of LISC is to exchange information about LISA with the wider science community.

The LCGT and DECIGO collaborations are Japanese ground?based and space gravitational wave antenna projects.

The Ninja Project is the goal of the Numerical Injection Analysis (NINJA) project is to bring the numerical relativity and data analysis communities together to pursue projects of common interest in the areas of gravitational?wave detection, astrophysics and astronomy.