The Center for Computational Relativity and Gravitation (CCRG) is a Research Center of the College of Science (COS) and an Research Center of Excellence at Rochester Institute of Technology (RIT) dedicated to research at the frontiers of numerical relativity and relativistic astrophysics, gravitational-wave physics, its connection to experiments and observations, and high-performance computation and scientific visualization.

Our mission is to advance discovery and knowledge of some of the most violent and energetic astrophysical phenomena in the universe, such as the merger of black holes, neutron stars, supernova explosions, supermassive black holes and their accretion disks, and rapidly spinning and/or accreting neutron stars that are the sources of powerful gravitational waves, gamma-ray bursts and highly relativistic jets.

The CCRG includes faculty, postdoctoral researchers, and students across several colleges, schools and departments at RIT, as well as affiliate researchers, external collaborators, and visiting scientists. The CCRG operates the state-of-the-art laboratories in high-performance computation and visualization, and manages several externally funded projects and collaborations. CCRG is supported by a combination of sponsored research awards (96%), which support a variety of research programs, and internal F&A return funds (4%) from OVPR.

Originally founded in 2007, the CCRG now includes tens of high-caliber faculty, research scientists, postdoctoral researchers, and an increasing number of graduate and undergraduate students across several departments and colleges. A more detailed history of CCRG is available in the New Wave Astronomy article of the RIT research magazine and in the University Magazine (spring 2010). See also RIT News.

The CCRG is currently governed by a Director and an Executive Committee (EC) composed of RIT faculty and research scientists, who are members of the Center, who significantly contribute to the core mission of the center and to its funding. The CCRG follows the RIT’s Academic Center Protocol and COS policies for centers and labs.