

Postdoctoral Fellowships in Multi-messenger Astrophysics at the Rochester Institute of Technology, New York

The recent observations of a binary neutron star merger using both gravitational wave interferometers as well as electromagnetic telescopes across the full spectrum have initiated the age of multi-messenger astronomy and astrophysics.

As part of several NASA and NSF collaborative projects, the RIT's Center for Computational Relativity and Gravitation (CCRG) is currently seeking to fill one or two postdoctoral research positions with highly qualified individuals interested pursuing research in the fields of numerical relativity, theoretical and computational astrophysics, with an emphasis on general relativistic magneto-hydrodynamics simulations.

We are particularly interested in relativistic magneto-hydrodynamics simulations of accretion disks around supermassive black hole mergers, and binary neutron star coalescences from prior to merger through to the formation of disks and/or collapse of the merged remnant, the production of jets, and launching of outflows. We are also interested perform "event-based" simulations, using parameters informed by specific LIGO/Virgo detections, and thereby permitting much closer comparison with observables, in order to interpret current and future multi-messenger observations by a wide array of current and future detectors.

The successful postdoctoral candidates will be Fellows of a new, prestigious **Frontier in Gravitational-Wave Astrophysics** (FGWA) Program. Initially appointed for two or three years, the Fellows are renewable up to five years depending on satisfactory performance and the availability of funds.

Senior scientists in the group include

Manuela Campanelli (Director)
Joshua Faber
Carlos Lousto
Richard O'Shaughnessy
Jason Nordhaus
Yosef Zlochower
Sukanya Chakrabarti
John Whelan
Hans-Peter Bischof
several postdoctoral fellows and Ph.D. students

See the [CCRG "People" webpage](#) for an overview on who is or has been at CCRG. The group is involved in several large collaborations, including the LIGO Scientific Collaboration (LSC), the [Einstein Toolkit](#) consortium, and the NASA Theoretical and Computational Astrophysics Network (TCAN). CCRG researchers have access to several computing cluster facilities at national computing centers such as XSEDE and the NCSA's Blue Waters Supercomputer (with an allocation of over 160MSUs), as well as a dedicated over 3000-core cluster hosted at the Center.

More information about the CCRG is available [at this link](#). Learn more about Rochester, New York, in this [Wikipedia entry](#).

Applications should consist of a cover letter, a brief statement of research interests, a curriculum vitae including publication list, and at least three letters of recommendation. All materials should be sent electronically as soon as possible to manuela@astro.rit.edu with a copy to crg-postdoc@ccrgweb.rit.edu. For an overview of employment opportunities, please visit the [CCRG](#)

[Job Openings webpage](#).

Enquiries can be addressed to the center's Director:

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Review of completed applications will begin as soon as possible and continue until a suitable candidate is found. Starting date can be as early as January and no later than September 2019. RIT is committed to equal employment opportunity and affirmative action.

Also, visit [APS's](#)

[Online Career Center](#) with many career related resources and nearly 150 positions available to students, postdocs, and career physicists.