**JAM SADIQ**

Center for Computational Relativity and Gravitation

Rochester Institute of Technology

78 Lomb Memorial Drive

Rochester, NY 14623, USA

1­5855036524

jxs1805@rit.edu

05/04/2015

Curriculum Vitae

**Interests**

General relativity; numerical relativity; black hole initial data; highly spinning

black holes; gravitational waves; strong gravity.

My Primary Research focus involves generating accurate numerical simulations of the inspiral and merger phases of orbiting black hole binaries. In particular, I am interested in exploring the extreme limits of general relativity in the regime of near-maximal intrinsic angular momentum. In addition to probing the peculiarities of nonlinear gravity theory, I plan to generate astrophysical gravitational waveforms for use in gravitational wave detection experiments.

**Education**

**Rochester Institute of Technology**, Rochester, NY, 8/2014 — Present

* Fulbright PhD candidate in Astrophysical Sciences and Technology

**Quaid-i-Azam University**, Islamabad, Pakistan, 2/2012

* M.Phil. in Applied Mathematics
* M.Sc. in Mathematics

**Research Experience**

**Graduate Research Assistant, Numerical Relativity** Rochester Institute of Technology, 8/2014 – Present Research Group: Center for Computational Relativity and Gravitation Supervision:  Yosef Zlochower, Ph.D.

**Responsibilities:**

* Research organization

**Thesis for the partial fulfillment of Master of Philosophy**,

Quaid-i-Azam University, Islamabad, Mathematics Department, 2/2010-2/2012

**Research Group**: Cryogenic Dark Matter Search

Supervision: Khalid Saifullah, Ph.D.

**Responsibilities**:

* Data analysis
* Public relations
* Website maintenance

**Publications**

First Law of Thermodynamics for black holes with negative cosmological constant. (In-Progress).

**Presentations**

“Upper mass limit of most massive stars.” Poster

 presentation at at Rochester Institute of Technology, Research and creativity symposium, 3/2015.

“First Law of Thermodynamics for black holes with negative cosmological”, presented at Quaid-i-Azam University, Islamabad, Pakistan, 2/2012.

**Conferences Attended**

7th RIT Graduate Research and Creativity Symposium, 3/2015.

Fulbright Enrichment Seminar, Los Angeles, California, 2/2015.

Fulbright Scholars Conference for Pakistan, University of Kentucky, 10/2014.

Winter meeting for particle physics, National center for physics, Quaid-i-Azam University, Islamabad, 11/2013.

International conference on Pure Mathematics, University of Punjab, Lahore, Pakistan, 3/2012.

International Conference on topology and applications, COMSATS Institute of Technology, Islamabad, Pakistan, 10,2011.

All Pakistan Young scientist Competition, University of Engineering and Technology, Lahore, Pakistan, 6/2011.

**Grants and Fellowships**

**Fulbright PhD award 2014**

Graduate Student Research and Creativity award (Rochester Institute of

Technogy Grant, 3/2015),  $200.

M.Phil. Fellowships, from Quaid-i-Azam University, Islamabad for 2010-2012.

Japanese need based Scholarship, Quaid-i-Azam University, Islamabad for 2009-2010.

**Teaching Experience**

**Teaching Assistant, General Relativity I (introduction to general relativity)** Quaid-i-Azam University Islamabad, Pakistan, Spring, 2012

Supervision: Khalid Saifullah, Ph.D.

Responsibilities:

* Substitute lecturing
* Tutoring

**Lecturer in Mathematics at Govt Degree College Daultala, Rawalpindi.**

**Lecturer in Mathematics at Punjab Group of College Chakwal Campus.**

**Visiting Lecturer at Department of Mechatronics and Electronics at UET Taxila sub campus Chakwal,**

**Internee teacher at Islamabad Model College for boys Bhara kahu, Islamabad.**

**Awards and Honors**

Fulbright PhD award

Research/Teaching Assistantship – Rochester Institute of Technology, 9/2014– Present Academic Excellence Award – Quaid-i-Azam University, Mathematics Department, 5/2010

Member American Physical Society

Member alumni association Quaid-i-Azam University, Islamabad. Pakistan.

Member All Pakistan Mathematical Society, Islamabad, Pakistan.

Member National Academy of Young Scientist, Pakistan.

Member Adventure club of Quaid-i-Azam University, Islamabad, Pakistan.

**Technology**

Mathematical Software – Matlab, Mathematica

Programming Languages – C, C++, Python, IDL

Operating Systems – Fedora/CentOS Linux, Windows XP/Vista/7

**References**

**Yosef Zlochower**, Ph.D.

Rochester Institute of Technology

Associate Professor

585­475­6103

yrzsma@rit.edu

**Joshua Faber**, Ph.D.

Rochester Institute of Technology

Associate Professor

585­475­2219

[olsma@rit.edu](mailto:olsma@rit.edu)

**Manuela Campanelli,**Ph.D.

Rochester Institute of Technology

Professor

585­475­7752

manuela@astro.rit.edu