

# BRUNO COUTINHO MUNDIM

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## Academic Address:

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**Citizenship:** Brazilian  
**Date of Birth:** July 06, 1976

## EDUCATION

- 2002 - Present      Ph.D. in Physics  
University of British Columbia, CANADA  
Thesis in progress: *Numerical Studies of Boson Star Binaries*  
Supervisor: Prof. Matthew William Choptuik
- 2002                      M.Sc. in Physics  
University of Brasília, BRAZIL  
Thesis: *Non-perturbative Renormalization in Statistical Physics*  
Supervisor: Prof. Paulo Sérgio da Silva Caldas
- 1998                      B.Sc. in Physics  
University of Brasília, BRAZIL

## ACADEMIC AWARDS, FELLOWSHIPS and HONORS

- 2006 - Present      International Partial Tuition Scholarship  
University of British Columbia
- June/2004              Academic award for meritorious participation in the 1st Gravitational Wave  
Astronomy Summer School  
University of Texas at Brownsville - CGWA
- June/2004              Award to participate in the 1st Gravitational Wave Astronomy  
Summer School and in the 1st Grid Summer Workshop  
University of Texas at Brownsville - CGWA
- 2003 - 2005              Ph.D. Tuition Fee Award  
University of British Columbia
- 2002 - Present      Research Assistantship  
University of British Columbia
- 2002 - Present      Teaching Assistantship  
University of British Columbia
- 2002 - 2003              Faculty of Graduate Studies International Graduate Tuition Scholarship  
University of British Columbia

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## ACADEMIC AWARDS, FELLOWSHIPS and HONORS (cont.)

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|-------------|---|
| 1999 - 2001 | CAPES M.Sc. Scholarship<br>University of Brasília   |
| 1995 - 1998 | PIBIC/CAPES <sup>1</sup> Scientific Initiation Scholarship<br>'Bolsa de Iniciação Científica PIBIC/CAPES'<br>University of Brasília |

## RESEARCH INTERESTS

Numerical relativity, general relativity, modelling of gravitational radiation sources, black holes and compact objects physics, computational astrophysics and cosmology, theoretical and computational physics.

## PROFESSIONAL AND TEACHING EXPERIENCE

- |                |   |
|----------------|---|
| 2002 - Present | Research Assistant<br>University of British Columbia<br>Dept. of Physics and Astronomy        |
| 2002 - Present | Teaching Assistant<br>University of British Columbia<br>Dept. of Physics and Astronomy        |
| 2001 - 2002    | Physics Teacher (grade 11, 12 level)<br>Colégio Ícone (Ícone Highschool)<br>Brasília - Brazil |

## TALKS AND SEMINARS (<http://laplace.physics.ubc.ca/People/bruno/talks.html>)

1. "A Numerical Study of Boson Star Binaries", First Graduate Committee Meeting presentation
2. "A Numerical Study of Boson Star Binaries", Student Theory Seminar Presentation
3. "Time functions in numerical relativity", GR (phys530b) term paper talk
4. "Maximum mass and maximum collapse function ( $z=2M/R$ ) for boson star models", Numerical relativity (phys555) term paper presentation
5. "A Numerical Study of Boson Star Binaries", Second Graduate Committee Meeting presentation
6. "Isolated and Dynamical Horizons", Gravity meeting presentation
7. "A Numerical Study of Boson Star Binaries", Third Graduate Committee Meeting presentation

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<sup>1</sup>Brazilian Funding Agencies

## BRUNO COUTINHO MUNDIM

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### CONFERENCES, MEETINGS and SCHOOLS

1. V Escola Brasileira de Estrutura Eletrônica Jorge André Swieca (*5th Jorge André Swieca Brazilian Electronic Structure School*), July 9-13, 1996, Águas de Lindóia-SP, Brazil. (talk)
2. 2º Congresso de Iniciação Científica da Unb (*2nd Unb Scientific Initiation Congress*), July 30-31, 1996, University of Brasília, Brasília-DF, Brazil. (talk)
3. 3º Congresso de Iniciação Científica da Unb (*3rd Unb Scientific Initiation Congress*), July 30-31, 1997, University of Brasília, Brasília-DF, Brazil. (talk)
4. 4º Congresso de Iniciação Científica da Unb (*4th Unb Scientific Initiation Congress*), August 12-13, 1998, University of Brasília, Brasília-DF, Brazil. (talk)
5. Graduate Summer School on General Relativistic Hydrodynamics, July 20-Aug 1, 2003, University of British Columbia, Vancouver, Canada.
6. 1st Gravitational Wave Astronomy Summer School, June 7-18, 2004, University of Texas at Brownsville - CGWA, South Padre Island, Texas, USA. (Best student award)
7. 1st Grid Summer Workshop, June 21-25, 2004, University of Texas at Brownsville - CGWA, South Padre Island, Texas, USA.
8. 11th Canadian Conference on General Relativity and Relativistic Astrophysics, May 19-21, 2005, University of British Columbia, Vancouver, Canada.
9. Unruh-Wald Fest, Aug 17-20 2006, University of British Columbia, Vancouver, BC, Canada.

### PUBLICATIONS (<http://laplace.physics.ubc.ca/People/bruno/talks.html>)

1. B.C. Mundim, A.J. Penner, M. Swift, "Maximum mass and maximum collapse function ( $z=2M/R$ ) for boson star models" (Under supervision of M.W. Choptuik) [in progress]

### PUBLICATIONS (non-refereed)

1. Bruno C. Mundim, Geraldo Magela e Silva, (1996), Simulações Numéricas de Redes Neurais (*Numerical Simulations of Neural Networks*). ANAIS do 2º Congresso de Iniciação Científica da Unb (*2nd Unb Scientific Initiation Congress ANNALS*), page 238.
2. Bruno C. Mundim, Geraldo Magela e Silva, (1997), Redes Neurais Aplicadas ao Estudo de Propriedades Poliméricas (*Neural Networks applied to the study of polymeric properties*). ANAIS do 3º Congresso de Iniciação Científica da Unb (*3rd Unb Scientific Initiation Congress ANNALS*), page 103.
3. Bruno C. Mundim, Paulo Sérgio da Silva Caldas, (1998). Renormalização em Física Estatística e Teoria de Campos (*Renormalization in Statistical Physics and Field Theory*). ANAIS do 4º Congresso de Iniciação Científica da Unb (*4th Unb Scientific Initiation Congress ANNALS*), page 202.

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### REFERENCES

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Prof. William G. Unruh  
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