

Youhei MASADA

Curriculum Vitae

Contact

Academia Sinica Institute of Astronomy and Astrophysics (ASIAA),
Theoretical Institute for Advanced Study in Astrophysics (TIARA),
7F of Condensed Matter Sciences and Physics Department Building,
National Taiwan University.
No.1, Roosevelt Rd, Sec. 4, Taipei 10617, Taiwan, R.O.C.,

Tel: + 886-2-3365-2200

Fax: +886-2-2367-7849

E-mail: masada@asiaa.sinica.edu.tw

Research Interests

Theoretical and numerical astrophysics:

- (1). MHD phenomena in compact objects, such as Supernovae, GRBs, and Magnetars.
- (2). MHD phenomena in solar and stellar interiors;

Education

Ph.D., Astrophysics, Spring 2008

Kyoto University, Kyoto, Japan

Thesis: *A Key Process for Magnetohydrodynamic Phenomena in Astrophysical Compact Objects*

Supervisor: Prof. Kazunari Shibata

M.S., Physics, Spring 2005

Osaka University, Osaka, Japan

Thesis: *Magnetohydrodynamic Instabilities in Stellar Evolutionary Stages.*

Supervisor: Dr. Takayoshi Sano

B.S., Physics, Spring 2003

Osaka University, Osaka, Japan

Minors: *Physics*

Employment

4/2006–3/2008

Assistant Lecturer

Theoretical Exercise of Electro-magnetics (III) and (IV),

for 3th-year undergraduate student of Kyoto university, Salary \$ 1000/month

10/2005–3/2006

Teaching Assistant

Fundamental Physics: Electro magnetics (I),

for freshman of Kyoto university, Salary \$ 500 /month

Awards

2005-2008

Graduate Scholarship (The Japan Scholarship Foundation) [\$ 1100/month]

2003-2005

Graduate Scholarship (The Japan Scholarship Foundation) [\$ 800/month]

1999-2003

Undergraduate Scholarship (The Japan Scholarship Foundation) [\$ 500/month]

Publications

Journal Papers

1. "Nonaxisymmetric Magnetorotational Instability in Proto-Neutron Stars", Masada, Y., Sano, T., & Takabe, H. 2006, The Astrophysical Journal, Volume 641, pp 447-457
2. "The Effect of Neutrino Radiation on Magnetorotational Instability in Proto-Neutron Stars", Masada, Y., Sano, T., & Shibata, K. 2007, The Astrophysical Journal, Volume 655, pp 447-457
3. "Dead Zone Formation and Nonsteady Hyperaccretion in Collapsar Disks: A Possible Origin of Short-Term Variability in the Prompt Emission of Gamma-Ray Bursts", Masada, Y., Kawanaka, N., Sano, T., & Shibata, K. 2007, The Astrophysical Journal, Volume 663, pp 437-444
4. "Solar-type Theoretical Model for Magnetar Giant Flare", Masada, Y., Nagataki, S., Shibata, K., & Terasawa, T. 2008, Submitted to The Astrophysical Journal (arXiv:0803.3818)
5. "Zeeman Spectrum from a Magnetically Triggered Jet", Suzuki, R., Masada, Y., & Kamaya, H. 2008, Accepted for Publications of Astronomical Society of Japan

Conference Papers

1. "Magnetorotational Instability in Proto-Neutron Stars", Masada, Y. 2007, ASP Conference Proceeding of the 7th Pacific Rim Conference on Stellar Astrophysics, 362, 117
2. "A Possible Origin of Short-term Variability in Collapsar Disks", Masada, Y., Kawanaka, N., Sano, T., & Shibata, K., Proceeding of the Suzaku Conference
3. "Magnetorotational Instability in Viscous Media - Application to the Central Engine of Gamma-Ray Bursts -", Masada, Y. & Shibata, K., Conference Proceeding as Invited Speaker: Magnetic Fields in the Universe II, 2008, Jan. 28 - Feb. 1, Cozumel Mexico,.

International Conference

1. Invited Speakers "Magnetic Phenomena in Astrophysical Compact Objects", Masada, Y. & Shibata, K. Magnetic Fields in the Universe II, Cozumel, Mexico, 2008
2. "A Possible Origin of Short-Term Variability in the Prompt Emission of Gamma-Ray Bursts", Masada, Y., Kawanaka, N., Sano, T., & Shibata, K. The Extreme Universe in the Suzaku Era, Kyoto, Japan, December 2006
3. "Nonaxisymmetric Magnetorotational Instability in Proto-Neutron Stars", Masada, Y. 7th Pacific-Rim Conference on Stellar Astrophysics, Sejong University, Seoul, Korea, November 2005

Technical Skills & Language

Skill: Fortran Programming

Language: Japanese, English

Miscellaneous

Citizenship: Japan

Marital Status: Unmarried