
Supernovae and Gamma-Ray Bursts 2013

Oct. 14 – Nov. 15, 2013,

Oct. 28 – Nov. 1 : Conference on Supernovae

Nov. 11 – 15 : Conference on Gamma-Ray Bursts

Yukawa Institute for Theoretical Physics (YITP),
Kyoto University, Kyoto, Japan

<http://www2.yukawa.kyoto-u.ac.jp/ws/2013/sngrb/SN-GRB2013.html>

!!!! Programs are released. !!!!

Final Circular

It is our pleasure to announce that we are organizing a workshop on supernovae and gamma-ray bursts at YITP, Kyoto, Japan from Oct. 14 to Nov. 15, 2013.

The main aim of this workshop is to share the current knowledge and the future prospects for research on the explosion mechanism of core-collapse supernovae (CC-SNe) and gamma-ray bursts (GRBs). Numerical simulation is a promising approach for studying the explosion mechanism. Establishing the equation of state for dense matter is one crucial ingredient, as well as understanding the composition and neutrino properties of dense matter. Observational confirmation of the explosion mechanism by MeV-neutrinos and gravitational waves is also very important. Furthermore, CC-SNe and GRBs are special phenomena in the universe where exotic physical conditions are realized. We would like to cover phenomena related to these events such as plasma physics and radiation processes in shocks of CC-SNe and GRBs and explosive nucleosynthesis. We hope that many researchers in these fields will participate in the workshop. To this end, we will provide the participants with excellent facilities at the Yukawa Institute for Theoretical Physics (YITP), where they will

find it easy to have conversations and discussions with each other in a pleasant atmosphere. We will also organize two conferences about the state-of-the-art research in these fields where participants can present their latest results. In particular, the current status of numerical simulations performed on the fastest super-computer in Japan (K-computer), of the Japanese gravitational wave detector in Japan (KAGRA), the MeV-neutrino detector (Super-Kamiokande), and the next generation of X-ray satellite (Astro-H) will be reported at the conferences.

Main topics of the workshop are:

1. Explosion Mechanism of Core-Collapse Supernovae
2. Equation of State for High-Density Matter
3. Structure of Neutron Stars as Remnants of CC-SNe
4. Collapsars and Magnetars as Central Engine of Long Gamma-Ray Bursts
5. Merging Compact Binaries as Central Engine of Short Gamma-Ray Bursts
6. Neutrinos and Gravitational Waves as Signals of Death of Massive Stars
7. Progenitors of CC-SNe and GRBs
8. Multi-Wavelength Observations of SNe, GRBs, and their Remnants
9. Plasma Physics, Particle Acceleration, and Radiation Process in Shocks of SNe, GRBs, and their Remnants
10. UHECRs and VHE-Neutrinos and Gamma-Rays from GRBs
11. Explosive Nucleosynthesis in SNe and GRBs

The workshop will last 5 weeks in total, including two one-week conferences on SNe and GRBs respectively. More than 100 people are expected to participate in each conference. The remaining 3 weeks are spent for workshops where participants can hear seminars in the morning and enjoy free discussions in the afternoon.

Invited or Keynote Speakers:

Supernova Conference:

G. Baym, S. Blinnikov, A. Burrows, R. Chevalier, D. Ellison, T. Enoto, A. Heger, W. Hillebrandt, C. Horowitz, N. Kanda, K. Kotake, M. Krumholz, J. Lattimer, G. McLaughlin, K. Maeda, A. Mezzacappa, B. Mueller, M. Nakahata, K. Nomoto, F. Oezel, P. Slane, A. Steiner, H. Uchida, M. Was

Gamma-Ray Burst Conference:

D. Allard, M. Aloy, A. Bauswein, A. Beloborodov, F. Daigne, M. Della Valle, N. Gehrels, D. Lazzati, M. Limongi, A. MacFadyen, J. McEnery, P. Meszaros, B. Metzger, A. Mizuta, K. Murase, S. Nagataki, A. Pe'er, S. Rosswog, F. Ryde, Y. Sekiguchi, M. Shibata, R. Surman, S. Wanajo, D. Yonetoku, S. Yoon, B. Zhang

Programs are released: The program for the SN and GRB conferences has been released as well as the program for the 3-week workshop. You can see them from the HP of the workshop. The programs are still tentative, although selected speakers are guaranteed to give oral talks if they will participate in the conferences/workshops. If you will not find your name in the programs, you are guaranteed to give a poster presentation (A0 size) during the conferences. Also, you might be selected as an oral speaker when there will be open slots due to cancellation of the selected speakers. These programs can be updated, so please keep checking them at the HP of the workshop.

Notes for participants of the 3-week workshop:

* The first thing you do at Yukawa Institute

Reception Desk

When you first come to YITP, please proceed to the Secretariat Desk. We will hand you a workshop kit, keys (your office key and a card key) and other stuffs.

The location and opening hours of the desk are:

Secretariat Desk: K106 in Research Building

Opening hours: 10:00-12:00, 13:00-16:00

(Mon.-Fri., except October 14 (Mon) and November 4 (Mon))

IMPORTANT NOTE:

Key deposit of 3,000 yen is required upon arrival.

Refunded when the keys are returned.

Notes for participants of the 2-week conferences:

* The first thing you do at Yukawa Institute

Reception Desk

When you first come to YITP, please proceed to the Secretariat Desk.
We will hand you a workshop kit, keys (your office key and a card key) and other stuffs.

The location of the desk is:

Secretariat Desk: At the Entrance of Yukawa Memorial Hall.

Reimbursement:

Date and time of the reimbursement will be notified upon reception.
See a message card attached to your name tag.

Registration fee:

Registration fee is 5,000 JPY and banquet fee is 5,000 JPY per person.
The fees can be paid by cash on site (only JPY is accepted).
Please pay them at the reception desk when you will arrive at YITP.

Organizing Committee Members:

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Organized by: Yukawa Institute of Theoretical Physics, Kyoto University

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Yukawa International Program for Quark-Hadron Sciences (YIPQS).

The Kyoto University Foundation.

iTHES: interdisciplinary Theoretical Science Research Group.

Grant-in-Aid for Scientific Research on Innovative Areas "Nuclear Matter in Neutron Stars Investigated by Experiments and Astronomical Observations".

HPCI Strategic Program Field 5 "The origin of matter and the universe".
