
Closing Remarks

International Symposium on Neutron star matter in view of nuclear experiments and astronomical observations

October 25, 2013, YITP, Kyoto, Japan

<http://lambda.phys.tohoku.ac.jp/nstar/symposium/2013.html>

Akira Ohnishi (YITP, Kyoto U.)

Symposium Hosts

- **Yukawa Institute for Theoretical Physics, Kyoto University**
Yukawa International Program for Quark-hadron Sciences



- **Grant-in-Aid for Scientific Research on Innovative Areas,**
“Nuclear Matter in Neutron Stars Investigated
by Experiments and Astronomical Observations”
2012-2016, headed by H. Tamura (Tohoku U.)



- **This one-day symposium was held as part of**
YITP long-term workshop on Supernovae and Gamma-Ray Bursts



Supernovae and Gamma-Ray Bursts

- 1st & 2nd weeks:

Workshop on Supernova explosion & Nuclear matter EOS

One-day symposium on Neutron Star Matter EOS

- 3rd week:

Conference on Supernova explosion

- 4th week:

Workshop on Gamma-ray bursts

- 5th week:

Conference on Gamma-ray bursts

Sorry for a short notice → participants

Thank you for allowing us to use one-day of the workshop

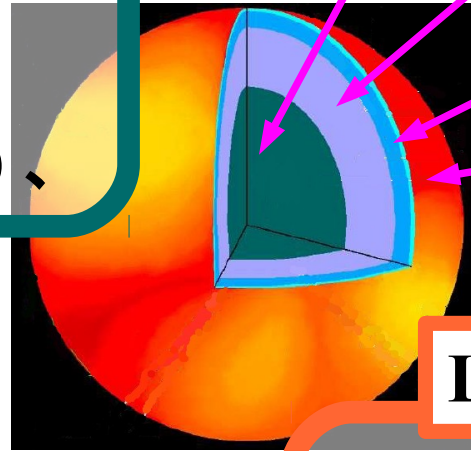
→ SNGRB LOC

Grant-in-Aid Study of Neutron Star Matter

High ρ (Group A)

Hypernuclei, Kaonic nuclei
YN & YY int.,
Eff. Interaction
(Heavy-ion collisions)

J-PARC



Hyperons, mesons, quarks

Asym. nuclear matter
+elec.+ μ

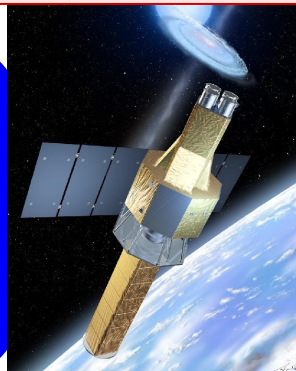
Nuclei+neutron gas+elec.

Nuclei + elec.

Low ρ (Group B)

Sym. E, Pairing gap,
BEC-BEC cross over,
Cold atom, Unitary gas

ASTRO-H



NS Obs. (Group C)

Radius, Mass,
Temp. (Cooling),
Star quake, Pasta

RIBF



Theory (Group D)

Program of the symposium

Session 1: Opening / X-ray observations

S. Nagataki, R. Rutledge, T. Dotani, T. Enoto

**NS Obs.
(Group C)**

Session 2: Neutron star structure

J. Novak, K. Kiuchi, H. Sotani

Session 3: Strangeness and quarks in Neutron Stars

T. Nagae, T. Harada, Y. Yamamoto, K. Masuda

**High ρ
(Group A)**

Session 4: Symmetry energy / Related topics of NS / Closing

T. Murakami, H. Sagawa, M. Tachibana, A. Ohnishi

**Low ρ
(Group B)**

Theory (Group D)

*I hope all of you enjoyed the discussion in this symposium,
and the symposium made the physics of NS matter
a step forward.*

Thank you !

I would like to thank

- **All the speakers and participants !**

- **Organizers**

**H. Sotani (YITP, chair), [A. Ohnishi (YITP, secretary),]
S. Nagataki (RIKEN), Y. Suwa (YITP), T. Murakami (Kyoto),
Y. Togano (Tokyo Institute of Technology), T. Takahashi (KEK),
K. Tsubakihara (Osaka Electro-Comm Univ.),
T. Tamagawa (RIKEN), T. Harada (Osaka Electro-Comm Univ.)**

- **Secretary: Y. Yagi (YITP)**