

Science café Sapporo  
sotory # 69

# The Structure of the Universe: A Recipe for Galaxies

date : **May 26, 2013** (sun)

14 : 00 ~ 15 : 30

place : Kinokuniya bookstore @ Sapporo

kita 5 nishi 5, Chuo-ku, Sapporo

guest : Professor Asao Habe & Dr. Elizabeth Tasker

host : CoSTEP, Hokkaido University

コーヒーを片手に  
科学の話をしよう



[costep.hucc.hokudai.ac.jp](http://costep.hucc.hokudai.ac.jp)

## Content

Since ancient times, people have been attracted to the beauty and numerous mysteries of the Universe. In the field of Astronomy and Space Science, results from both observations and theory have pooled together to try and understand how the Universe works.

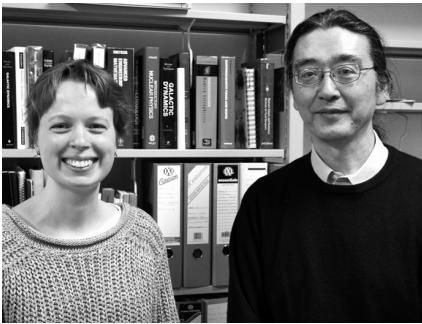
In recent years, the possibility of mysterious presences known only as "dark matter" and "dark energy" have attracted researchers. Neither of these can be "seen" directly by any kind of observation. However, there are many observational results which cannot be explained unless the existence of these entities is assumed.

Today, it is believed that dark energy and dark matter have had a decisive influence on how the structure of the present cosmos has been generated. However, even if scientists are able to guess the mechanism through which the Universe formed, we cannot directly observe the earliest years of the cosmos nor bring it into the laboratory. For this reason, scientists use computer simulations in their research. In this science cafe, we will hear from two astrophysicists who utilize this technique.

Professor Habe studies the formation of the structure in the Universe and Dr. Tasker studies the formation of stars and galaxies.

Come and listen to the story of these two scientists and think about the future of our Universe together?

## Speakers' Profile



### Professor Asao Habe

Professor Habe was born in Bibai, Hokkaido and is now a professor at the Graduate School of Science at Hokkaido University. His field of study is astrophysics and is particularly interested in the physical properties of the Universe, such as its density, temperature and its consisting elements. In order to explore how the Universe has been generated and how it will continue to evolve in the future, Professor Habe uses computer simulations to study the Universe's physical structure. Attracted to the beauty of the four seasons on the Sapporo campus, Professor Habe enjoys walking around the university and Tai Chi.

### Dr. Elizabeth Tasker

Dr. Tasker was born in the UK and completed her Ph.D at Oxford University. From there, she became a researcher at the University of Florida in the United States and then at McMaster University in Canada. In July 2011, Dr Tasker came to the Graduate School of Science at Hokkaido University as an assistant professor. Together with Professor Habe, she studies how stars form in galaxies like our own Milky Way. Dr Tasker is also interested in communicating science to the general public and feels that no topic is too hard for anyone to understand! In this area, she writes for the overseas public relations magazine of Hokkaido University. At the moment, Dr Tasker is struggling hard to learn Japanese. Her favourite Japanese word is 'waku-waku' (exciting).