

# Popularization of Astronomy under Cooperation between Students and Educators in Japan: the TENPLA project (2)

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## ABSTRACT

The TENPLA project is a Japanese unique activity in popularization of astronomy under cooperation between students of astronomy, young astronomers, and social education facilities such as science museums (see also poster by M. Hiramatsu, SPS2-95). In this poster, we present our individual activities for public in detail. Our aim is to provide bridges between astronomy and public, especially people who are unfamiliar with astronomy, directly by students and young astronomers at many scenes of life such as in schools, cafes, hospitals and so on. Examples of our activities are as follows (1) Learning astronomy with local people, by local people, for local people. (2) Science cafes about astronomy at book stores, small restaurants and local airport. (3) Traveling lecture of astronomy for hospitalized children.

## Motivation

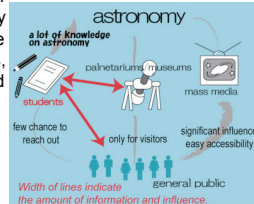
The TENPLA project is a cooperative network between astronomy students, educators such as staffs of planetarium and science museum, and those who engage in popularization of astronomy in Japan. We have 201 members and they distribute all over Japan.

### Why do we popularize astronomy?

-- Because we think astronomy is interesting and it is very exciting to share the results of astronomy and the latest view of the universe with a lot of people.

In Japan, students or astronomers are always close to the latest astronomy, but have few chances to popularize their knowledge by themselves. By contrast, educators or mass media are easy accessible to public though they have few channels to know the latest universe. So, we have tried to build up a network between students, astronomer, and educators for popularizing the latest and real astronomy effectively.

The TENPLA project rolled out various activities. In this poster, we present some examples. We have the other poster SPS2-95 by M. Hiramatsu focusing on our approach to public with making products.



## Science Cafe

Science cafe is derived from "Café Scientifique" held in UK. In recent years, various science cafes have been held in Japan by various organizers such as universities, NPOs, and groups of students. We, TENPLA, have also carried out some science cafes in order to spread latest astronomy among public people and give them opportunities to enjoy astronomy. Examples are as follows.

### Science Cafe @ Book Store 2005.10.8

TENPLA's first science cafe was held at entrance hall of a big book store in the downtown area of Sapporo city in collaboration with "Communicators in Science and Technology Education Program (CoSTEP)", which is a science communicator training course in Hokkaido University. We had a lot of audiences as much as 200. They first enjoyed talks by Dr. J. Watanabe and a few students who specialize astronomy. Then around 20 students went into the audiences and discussed freely about astronomy, lives in their study, and so on. It was great success and wonderful experience for TENPLA, although we had moments of reflection such as site layout, detail progress of the contents, and handling of too many audiences, etc.



### 2005.10.6, 2006. 2.20 Science Cafes @ Small Restaurants



We held a few science cafes in local small restaurants. They are better place for talking and discussing freely between scientists (students) and public people than large hall. Although we met the audiences – they happen to visit the restaurant at that time – for the first time, we enjoyed each other's company in a friendly atmosphere and there were a lot of questions and fruitful discussions.

### Science Cafe @ Art Museum 2006.4.23

Ohara Museum of Art is located at the historical town in Kurashiki city. Surrounded by famous paintings (such as Monet, El Greco, ...) in an exhibition room, our science cafe started with 30 minutes of talk between Prof. N. Kaifu (ex-director of National Astronomical Observatory of Japan) and Prof. M. Aoyagi (director of the National Museum of Western Art). Then, all lecturer and audiences moved to the other exhibition room and enjoyed free talk session with drinks and cookies. All of audiences could talk with the lecturers and our staffs in buffet style.



### 2005.12.14, 2006. 7.14 Science Cafe @ Local Airport

Have you ever watched stars lying on an airport runway? We have held event of science cafe and star party at Chofu airport, a local small airport in western Tokyo, in collaboration with "propeller cafe" which is a nice cafe adjacent to the runway and aircraft hanger. The participants of about 50 (families, couples, groups of students, and so on) first had a dinner in the cafe while talking about astronomy and science with TENPLA staff. When it got dark, we set up some amateur telescopes and started star party session on the airport runway. After some short talks about astronomy, constellation, and airport, the participants enjoyed star watching in their own style, for example simply lying on the runway, watching some objects with telescopes, etc. Particularly the first one was held on Dec. 14, 2005 when the Geminids meteor shower was at peak, so we could find a lot of meteors across the airport's wide sky.



## Activities

### Community-based Learning of Astronomy

TENPLA aims to make an environment that people can search and enjoy astronomy on their own initiative in their lives. For this purpose, we provide some programs for local community in collaboration with some local NPOs.

#### Roadmap of Activity:

- phase 1:** TENPLA provides how to enjoy astronomy for local public.
- phase 2:** People propose ideas of event, and TENPLA helps them.
- phase 3:** People host various projects independently of TENPLA.

#### Example: Mitaka Starry Sky Club

**Aim:** Learning how to enjoy astronomy and watching star.

**Target:** Families with little children (participants: 10 parents with 14 children)

#### Contents:

- Series of lecture (held twice a month, 6 times in total) about the latest results of astronomy and how to use an amateur telescope.
- Those who finish the lecture will **get a license** to rent TENPLA's 10cm telescope.
  - It will be utilized in watching star with their family of friends.
  - TENPLA will support star parties held by them.
- Participants can use child-care service without charge.
  - They can concentrate on the lecture without care of grizzling child.
- This lecture is collaborated with NPOs for parents with little children.

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### Traveling Lecture in Hospital

TENPLA provided a traveling lecture in a hospital in Tokyo. Because hospitalized children have no opportunity for learning astronomy and watching star in their hospital.

- Nine students and one professor visited the pediatric department in the hospital.
- We had a lecture of astronomy using many astronomical images and 3D CG software "Mitaka" (developed by 4D2U project in NAOJ) in a play room. About 10 people joined including parents.
- For other children who can not go out from their rooms, we visited their individual rooms, made a lecture, and talked with them to suit their interests.
- Most of the children seemed to **enjoy and be interested in astronomy**. For example, we heard from hospital staff that one of them made a smile for the first time since he entered the hospital. This episode shows that this effort has been successful.

