



Japan Society for the Promotion of Science

San Francisco Office

2001 Addison Street, Suite 260 Berkeley, CA 94704 USA

EVENTS OF WINTER 2009

Issue March 2009

JUNBA

JAPANESE UNIVERSITY NETWORK IN THE BAY AREA

JUNBA2009

- NEXT STEP TO A GREENER EARTH -

Volume XIII

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JUNBA2009
NEXT STEP TO A GREENER EARTH

Solar Energy, Fuel Cells, Hydrogen, Electric Cars, Environmental Issues, Bio Fuel, Bio Technology, Rare Metal Recovery...and More!

Date:
Jan 13 (Tue), 2009

Symposium:
 8:20 AM to 12:00 PM
 Registration from 7:30AM

Speakers:
 Yasushi Taguchi (MEXT)
 Barry Klein (UC Davis)
 Steven W. Relye (UC San Diego)
 Christopher Somerville (UC Berkeley)
 Arun Majumdar (Lawrence Berkeley National Lab)
 Katherine Moortgat (Mohr Davidow Ventures)
 Saeed Amidi (Plug & Play Tech Center)
 Jay Lytle (Sughrue Mion, PLLC)

Technology Fair:
 1:00 PM to 6:00 PM

Presenters/Exhibitors:
 Tesla Motors, Sol Focus
 BrightSource Energy, Cobalt Biofuels
 UC Berkeley, UC Davis, UC Santa Cruz
 Hiroshima U, Kagoshima U, Kanazawa U
 Kyushu U, Niigata U, Osaka U, Ritsumeikan U
 Shibaura Institute of Tech, Shinshu U
 Tohoku U, Tokyo Medical and Dental U
 Tokai U, Tokyo Metropolitan U
 Tokyo U of Agriculture and Tech
 Tokyo U of Marine Science and Tech
 Tokyo U of Science, U of Tokyo
 U of Yamanashi, Yokohama City U

Venue:
San Francisco Airport Marriott
 1800 Old Bayshore Highway, Burlingame, CA 94010

For More Information:
www.junba.org



Organized by:
Japanese University Network in the Bay Area



Co-Organized by: Consulate General of Japan in San Francisco
JSPS (Japan Society for the Promotion of Science)
JETRO San Francisco

Supported by: Ministry of Education, Culture, Sports, Science and Technology of Japan

Sponsored by: Sughrue Mion, PLLC

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Questions or Feedback?

Email: webmaster@jpspsusa-sf.org



<http://www.junba.org/>

JUNBA 2009 was held to advance University-Industry Collaboration

On January 12-13, JUNBA (Japanese University Network in the Bay Area) held its annual event JUNBA 2009, in the vicinity of San Francisco, California. The JSPS San Francisco Office serves as JUNBA's secretariat. Titled "Next Step to a Greener Earth," this third event in the series featured presentation by US and Japanese universities and corporations on the results of their latest research aimed at addressing environmental problems.

JUNBA SUMMIT



On the first day, representatives of JUNBA core-member universities engaged each other in topical presentations and discussions, exchanging views on forming university-industry collaborations in areas of environmental research and on fostering young researchers adept at carrying out international exchanges.

What is JUNBA

JUNBA is a network among Japanese university offices in the Bay Area. The current core members include Hosei University, Kagoshima University, Kyushu University, Osaka University, Tohoku University, and Tokyo University of Science. JSPS (Japan Society for the Promotion of Science) SF Office joined as a core member to promote the activities of JUNBA.

The mission of JUNBA is to assist the enhancement of education and research activities and the creation of new businesses for Japanese universities, by helping their internationalization movements, by helping the training of their students and personnel and by promoting a development of academia-industry relationships between Japan and the United States.

The second day focused on a symposium and technology fair, both open to the general public. The morning saw presentations on environmental initiatives being taken by various branches of the University of California and on the roles of venture capital and intellectual property within a context of university S&T enhancement. Two sessions were held on energy and environmental topics in the afternoon, featuring some 30 presentations on advanced technologies being developed in these areas by US and Japanese universities. Concurrently, samples and posters of the technologies were displayed in an exhibit hall.

JUNBA SYMPOSIUM



JUNBA TECHNOLOGY FAIR



The day's events offered the participants an excellent opportunity to disseminate and swap information with an eye on promoting international university-industry collaboration. Throughout the proceedings, JUNBA 2009 enjoyed tremendous success attracting some 250 attendees, far exceeding expectations.



Dr. Masaaki Hayashida

MS: in physics, University of Tokyo, Japan, 2003

DS: in physics, Ludwig-Maximilians-Universität München, Germany, 2008

Research Staff Formation Grant awarded by Max-Planck-Institut fuer Physik (Werner-Heisenberg-Institut) 2004-2008

JSPS Fellowship for Research Abroad at Stanford University, 2008-

Dr. Masaaki Hayashida is working on high-energy astrophysics at SLAC national accelerator laboratory, Stanford University.

From the universe, extremely energetic particles, -- too energetic to be generated in the Earth, are arriving. Such energetic particles are called "cosmic rays", which can be generated around super-massive blackholes, super-nova remnants and gamma-ray bursts. He is trying to understand "how such energetic particles are generated" by observing high-energy photons coming from those celestial objects. It also provides knowledge about the evolution of those objects, hence history of the universe.

After finishing his Masters course at the University of Tokyo, he joined the Max-Planck-Institute for Physics, Munich in Germany as a PhD student to work on the "MAGIC" project. "MAGIC" is a so-called "Cherenkov Telescope", which is used to observe highest energy photons (>100 GeV) from the celestial objects, instead of the "normal" optical emission.

He finished his PhD course on this project, and then moved to the U.S. to join Fermi Gamma-ray Space telescope project. This "Fermi" telescope is a satellite which observes gamma-ray (20MeV- 200 GeV), which is crucial to understand the origin of cosmic ray.

Fermi has just started this operation since last June after a 10-year invisible period for this energy range. He expects this new satellite will bring us "new insight" into astrophysics.

Q1 Why did you choose the U.S. to pursue your research?

The project which I am currently working on is a huge international collaboration. In fact, more than 300 people are working on this project in total. For such a big project, it is essential to exchange and follow the information with other

scientists to carry out the study.

Our institute (SLAC) is the host institute for this project. Therefore, I have realized that SLAC is the best place to better my studies.

In addition, I have ever worked in Japan and Europe. I also want to establish a new "relationship" with U.S. society in my field as well.

Q2 What is your impression of the research environment in the U.S.? How is it different from your lab in Japan?

There are many scientists coming from all over the world. (I think only ~ 25% are American in my institute) There are many visitors and seminars as well. Therefore, we can have many opportunities to listen/ask/exchange the latest information with famous scientists.

People also enjoy their private life with their families and friends. No one does overnight work. Every one naturally takes vacations. Of course, we are required to derive "nice" results. We need to organize by ourselves.

Q3 What merits do you derive from conducting your research in the U.S.?

"Fermi" satellite is the only telescope which can observe the photons with this high energy range in the world, and SLAC is the host institute for this project.

I have plenty of merits to conduct my research with this satellite because a lot of important information is being gathered here.

Since the scientists in my institute come from all over the world, their qualities are

high and each has their own research interest.

It is fun to talk with those people because I can learn a lot of things from their knowledge, in particular, with different point of views.

Knowledge from the different topics helps me to have great knowledge and new ideas for my research.

Q4 What is your dream? And do you have any advice about doing research abroad for young researchers?

As a scientist, ultimately, I would try to establish a new field for astrophysics. But, basically, I do not want to forget "What do I want to see/know?".

In our field, it is really important to communicate with each other because the project is usually large.

Discussion will certainly help your study. When you go abroad, just do not hesitate to speak and discuss with your colleagues.

In my impression, Japanese students study well and have good results, but are poor at presenting their own results in some cases. Be confident with your results and do not be afraid to make a mistake.

As long as you try to explain (even with poor English), your colleagues are willing to try to understand your results.

BAY AREA & JAPAN RELATED NEWS



Osaka University



The 3rd MEI International Symposium

Physiome and Systems Biology for Integrated Life Sciences and Predictive Medicine

On Nov. 30th –Dec. 2nd, the 3rd MEI International Symposium was held at Hyatt Regency San Francisco with the support of Osaka University SF center. It was sponsored by the Center for Advanced Medical Engineering and Informatics (MEI Center) and the Global COE program 'A center of excellence for an *in silico* medicine-oriented worldwide open platform', Osaka University. The symposium was organized to have cross-disciplinary discussions about the cutting-edge modeling schemes on multiple levels, i.e. from molecule to body functions, and to explore an international cooperative framework to achieve the holistic understanding of human life and develop systems for predictive medicine.

In the symposium, we had 53 attendees in a wide variety of field of study from the following 12 institutes: California Institute of Technology, Fujitsu Limited, Intasect Communications, New York University, Osaka University, SRI International, The University of Auckland, The University of Bath, The University of California San Diego, The University of Maryland, The University of North Carolina, The University of Washington (alphabetical order). The symposium featured nine sessions covering a variety of topics on the supportive platforms for modeling of physiological functions, pharmacophore modeling, cell-signaling, organ level simulation based on biomechanics, and facial morphology and functions. The participants excitedly discussed the current progress and future prospects of each topic on the basis of their different backgrounds. The symposium was very flourishing and fruitful for worldwide promotion of the physiome projects.



These articles are provided by each University.

JSPS SF Office Always Welcomes Your News

We are looking forward to hearing your news regarding international related events and so on.

If you have any news about your institution or your research, please feel free to ask us about including it in this newsletter.

This news letter will be distributed to international sections in Japanese universities and subscribers in the Bay Area.

As always, should you have any specific questions, or if you would like

to be added to our mailing list, feel free to contact us at webmaster@jpsusa-sf.org.

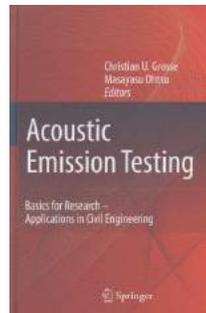
Check out our website !
www.jpsusa-sf.org



Prof. Masayasu Ohtsu in the Graduate School of Science and Technology, Kumamoto University, has received the Gold Medal Award from the Acoustic Emission Working Group, U. S. A.

Prof. Masayasu Ohtsu has long been working on applications of acoustic emission (AE) techniques to concrete engineering and is well known for his superior achievements. In December, 2008, he received a gold medal award from the American Society of the Acoustic Emission Working Group (AEWG: <http://www.aewg.org/bylaws.htm>). This award is presented whenever warranted to an individual for numerous contributions and outstanding leadership in the field of acoustic emission.

He is the third recipient from Japan, following emeritus professors Morio Onoe and Teruo Kishi from the University of Tokyo. One highlighted achievement contributed to receiving the award is a publication of a book "Acoustic Emission Testing" from Springer-Verlag, Berlin with the coeditor Dr. Christian Grosse (in the picture below).



US Secretary of State Hillary Rodham Clinton Town Meeting with University of Tokyo Students

On Tuesday, February 17, at Yayoi Auditorium Ichijo Hall, US Secretary of State Hillary Rodham Clinton had a lively Town Meeting attended by 270 University of Tokyo students. Before the meeting, University President Komiyama and Executive Vice President Asashima, and student representatives, had discussions with and presented a commemorative gift to Secretary Clinton. The Town Meeting was managed by University students, beginning with a welcome address by University President Komiyama and followed by a speech by Secretary Clinton, who then took questions from students, kindly answering each in detail.



These articles are provided by each University.

Introduction of new project, "Innovation Platform for Fisheries and Marine Technology"

Hiroshi K. Nakamura and Satoshi Hashimoto

(Tokyo University of Marine Science and Technology)

The Tokyo University of Marine Science and Technology proposed a new concept referred to as, "Innovation Platform for Fisheries and Marine Technology" to the Project for the Strategic Development of Industry-University-Government (I-U-G) Collaboration of the Ministry of Education, Culture, Sports, Science and Technology (MEXT). The region of Promotion of Distinctive Projects had received 41 applications from 50 organizations. Twenty two (22) applications from 30 organizations, including our concept, were adopted. We began implementing the five-year plan delegated by the MEXT in June 2008.

(1) Background and issues

Recently, we were required to create a technological innovation. The concept evolved from the premise that existence of public research institutions, such as, universities, are put into question as on how much contribution they make to the society. The university is expected to "give-back" to the society. Small- and medium-sized enterprise as well as venture company do not have the capacity to finance long-term business strategy and to develop new products. These business entities want to utilize basic research output of the university. The university also needs assistance from private companies in order to transfer its research output to the society. The essence of industry-university collaboration works this way. There is a wide range of needs and the technical seeds scattered all over the nation, thus, how all these can be connected seems very difficult. Moreover, problems might arise as to whether the industry and the university could find its appropriate partner while there is a pressing demand for industry-university collaboration (Fig. 1).

(2) Proposition for "Innovation Platform for Fisheries and Marine Technology"

Therefore, construction of a "Meeting Place" for the industry and the university to solve such problems stated above is a pressing need. We first considered the variety of needs from the industry and the researchers in various fields. If these elements are scattered all over the place, it is not realistic to construct a meeting place for all fields. Technical field and the industry needs should be specified.

Fishery resources are one of the valuable properties of maritime nation Japan. There are many industries all over the country that utilize fishery resources but many of them are small- and medium-sized enterprise. Fisheries-related industries are locally based and support local economy and their management base is weak. Therefore, we have proposed and started a one-stop liaison, "Innovation Platform for Fisheries and Marine Technology" as a new matching system (Fig. 2). Fisheries-related industries cover a broad range of areas, from traditional knowledge and skills, like fishing methods, to advanced science and technology. These distinctive industries and public research institutions, such as universities, all over the country gather at the "Innovation Platform for Fisheries and Marine Technology" with their requests and meet their appropriate partner. This project acts as a mediator between local industries and researchers, helps to develop new products and create new business.

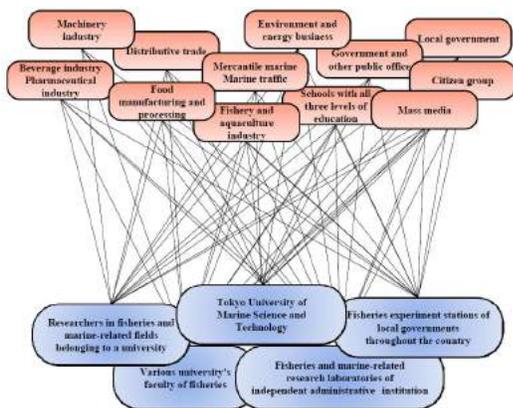


Fig. 1 Complex transactions

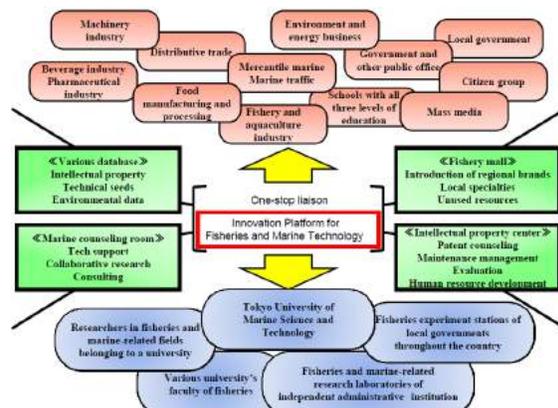


Fig. 2 Construction of "Innovation Platform for Fisheries and Marine Technology"