University of Tsukuba
Center for Computational Sciences

Joint Institute for Computational
Fundamental Science
JICFuS

Toward Better Relationship Between CCS and the World

Bureau of Public Relations
Tomoaki Yoshito
Azusa Yabe

Outline

- Scope of Work - Bureau of Public Relations
- PR Strategy and Activity of CCS
- PR Strategy and Activity of JICFuS

Scope of Work - Bureau of Public Relations

PR for CCS

University of Tsukuba
Center for Computational Sciences

PR for JICFuS

Joint Institute for Computational Fundamental Science

K computer Project

KEK
High Energy Accelerator Research Organization

NAOJ
National Astronomical Observatory of Japan

Chronology

2010 Foundation of Bureau of Public Relations. (1 member)
2011 K computer Project started. (2 members)

Object of Public Relations

I. **To build better relationships** between organization and society, and develop the organization by communication activities.

II. **To collect the information** inside and outside the organization which needed for making management decision.

III. To use the information collected and **supply information** for there stakeholders.

Planning of PR strategy

I. Understand and share the prospectus of the organization(reason for existence)

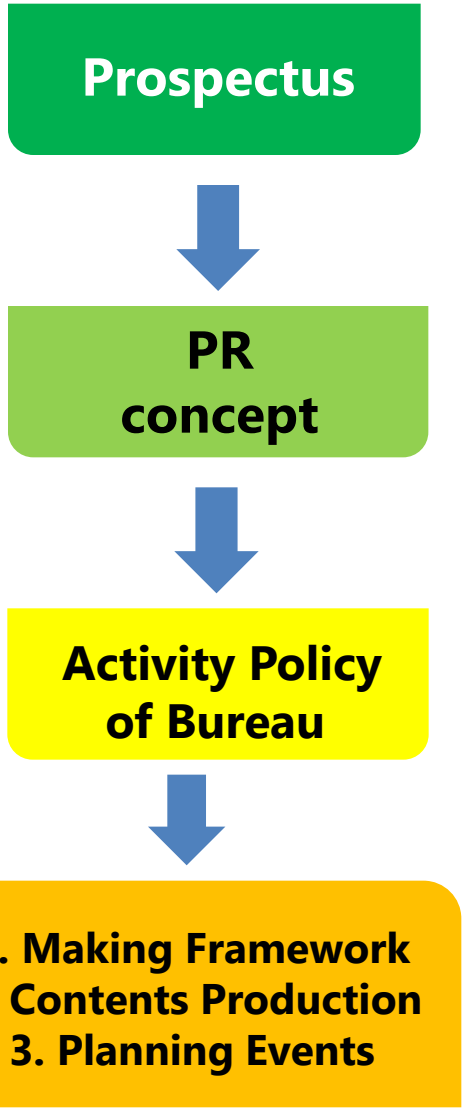
⇨ Ask head quaters “what is CCS?”
“What is JICFuS?” (Hearing investigation)

II. Define the PR concept

⇨ Define the PR concept along the prospectus.
Define the stakeholders.

III. Decide the Activity Policy of Bureau of PR

⇨ Carry out specific activities
based on the PR concept.



University of Tsukuba
Center for Computational Sciences

PR STRATEGY AND ACTIVITY OF CCS

Public Relations Concepts

- We will conduct **bilateral public relations** to foster enhanced relationships between the Center and society.

- We will aim at **increasing the name recognition of CCS** and the **Computational Sciences.** (to general people)

- We will **enhance the level of understanding of the fundamental policies of the Center**, and work to **improve reliability of the Center**. (to researchers)

Activity Policy for the Bureau of Public Relations

- We will **support public relations and public hearings for researchers** associated with the center.
- We will create content, including websites, in order to **provide information to stakeholders**.
- We will actively **gather information and create feedback** mechanisms for researchers within the center.
- We will **build a risk management** organization.
- We will **examine and implement methods to measure name recognition(popularity), levels of understanding, and degrees of reliability**.

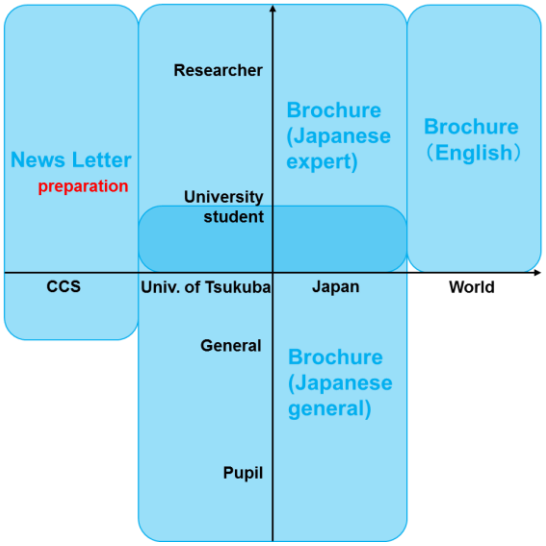
Stakeholders

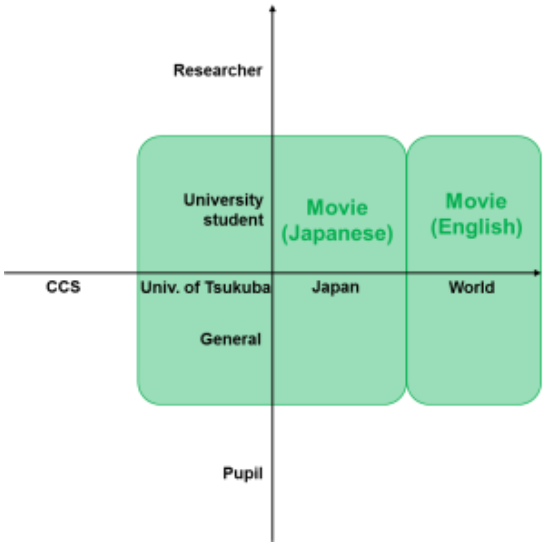
- Researchers related to computational sciences
- Researchers outside the field
- Government, Taxpayer
- Citizen

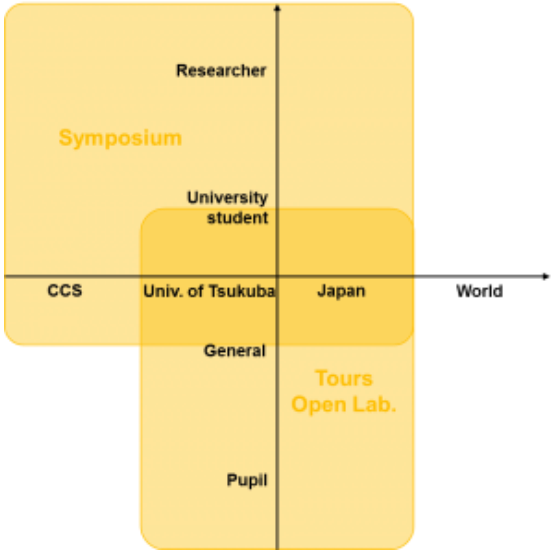
Strong Points

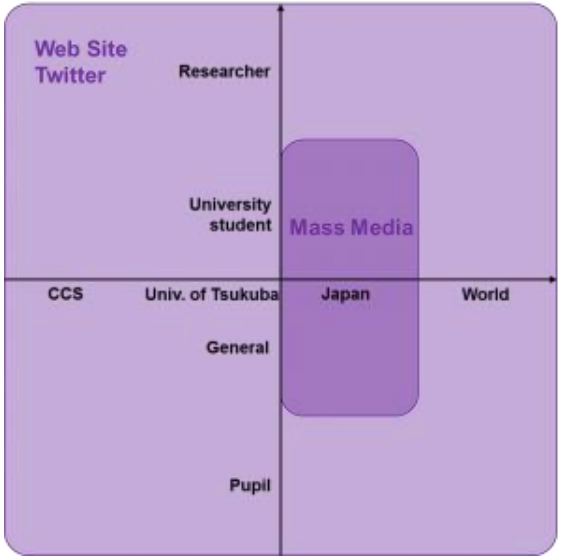
- The **research and development** by interdisciplinary fusion of computer science and computational science that CCS has been doing up to now
- **Experienced operation of the computers**
- Achievement of **human resource development**

PR Activity MAP



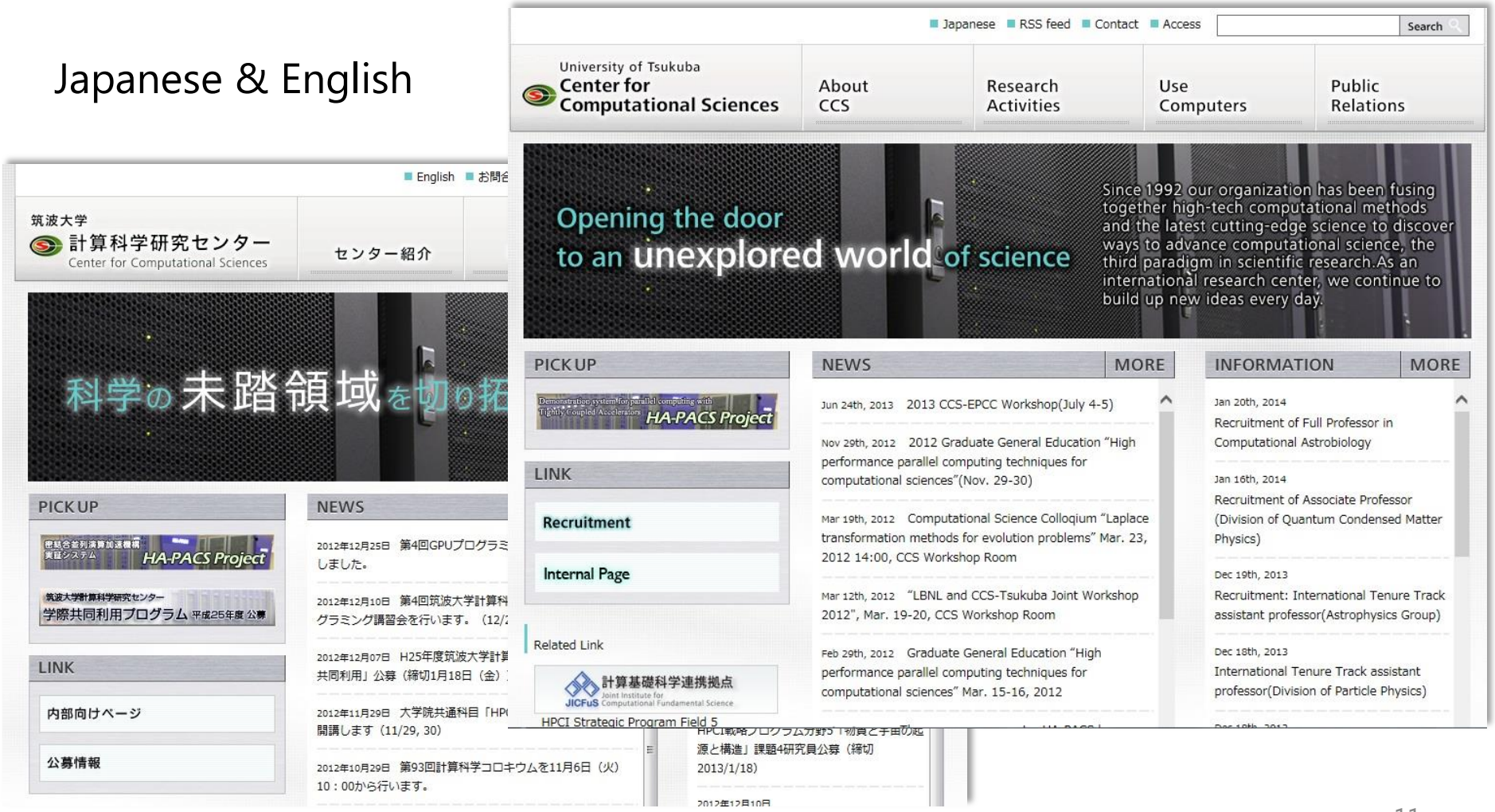




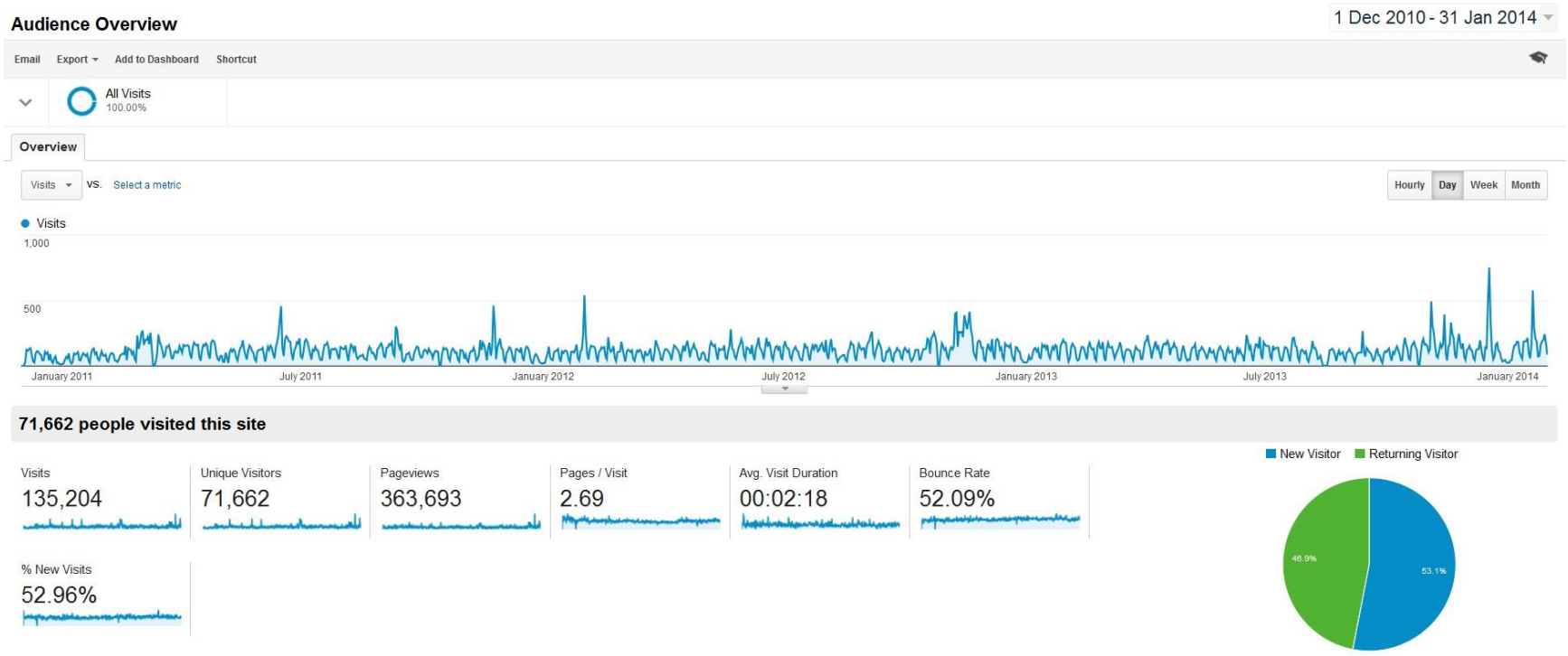


Website: Nov.1, 2010- http://www.ccs.tsukuba.ac.jp/

Japanese & English



Access analysis of the website



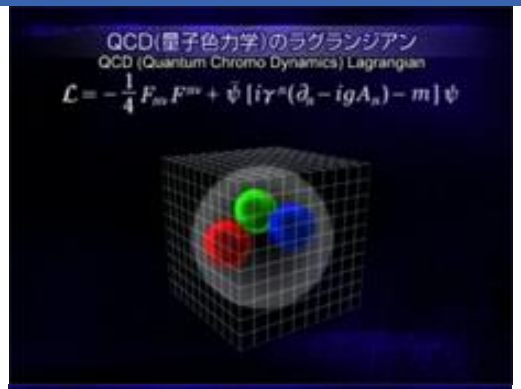
2,200 page views per week in Japanese
230 page views per week in English

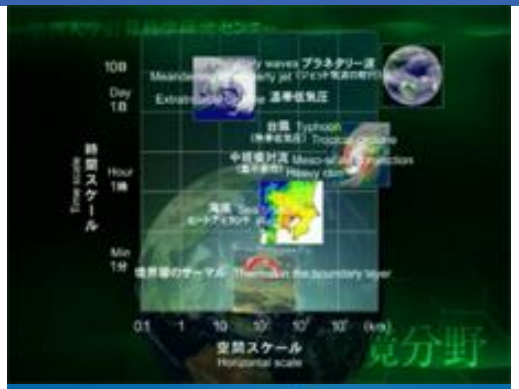
Brochures

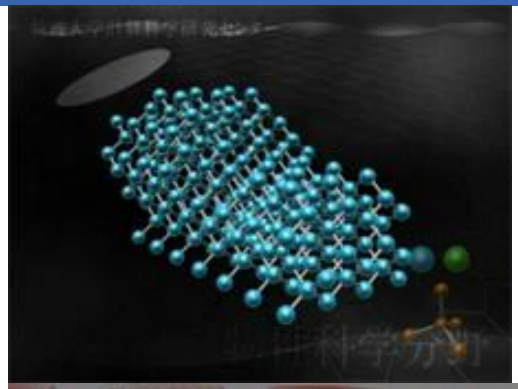
Graduate students and older

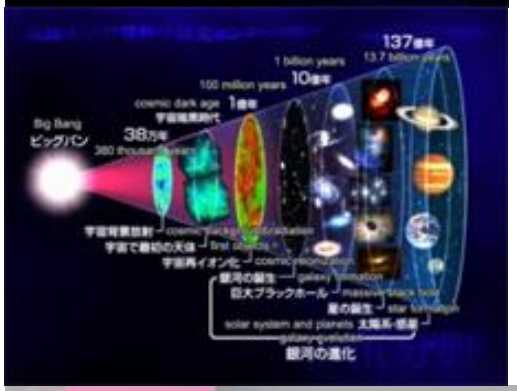
High school students and older

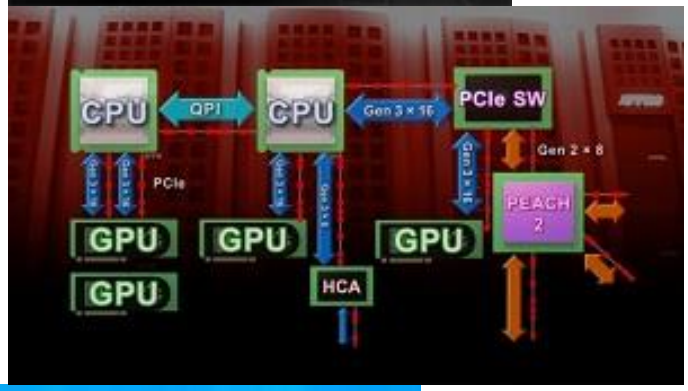
Movies: 12 movies

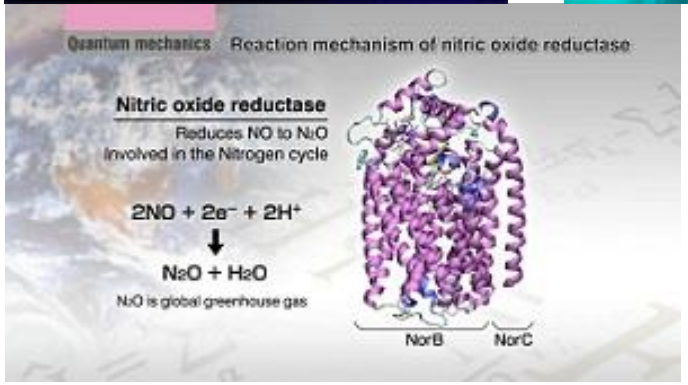












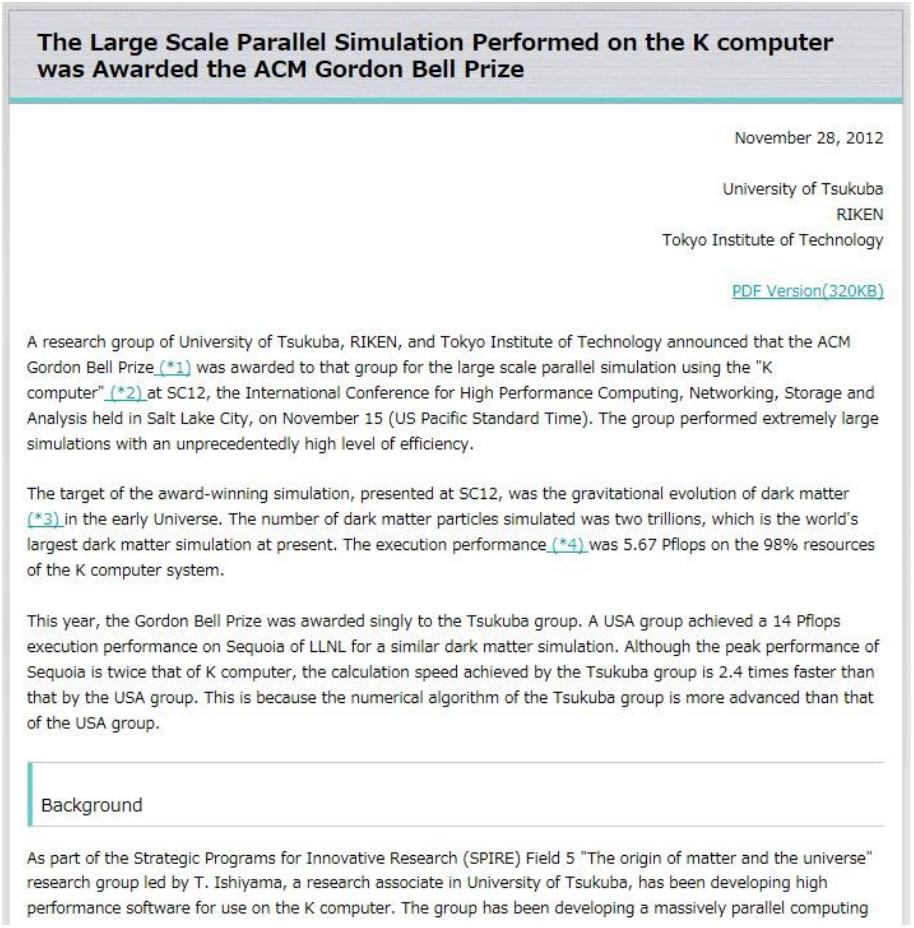
Site Visit and CCS Open day

- Number of visitors
  - **351** in fiscal year 2010
  - **1,056** in fiscal year 2011
  - **844** in fiscal year 2012
  - **1,315** in fiscal year 2013

Media Promotions

Press releases

- **7** in fiscal year 2011
- **5** in fiscal year 2012
  - Eg: The Large Scale Parallel Simulation Performed on the K computer was Awarded the ACM Gordon Bell Prize
- **6** in fiscal year 2013
  - Eg: K computer Recognized in Class 1 and 2 of the HPC Challenge Awards



The Large Scale Parallel Simulation Performed on the K computer was Awarded the ACM Gordon Bell Prize

November 28, 2012

University of Tsukuba
RIKEN
Tokyo Institute of Technology

PDF Version(320KB)

A research group of University of Tsukuba, RIKEN, and Tokyo Institute of Technology announced that the ACM Gordon Bell Prize (*1) was awarded to that group for the large scale parallel simulation using the "K computer" (*2) at SC12, the International Conference for High Performance Computing, Networking, Storage and Analysis held in Salt Lake City, on November 15 (US Pacific Standard Time). The group performed extremely large simulations with an unprecedentedly high level of efficiency.

The target of the award-winning simulation, presented at SC12, was the gravitational evolution of dark matter (*3) in the early Universe. The number of dark matter particles simulated was two trillions, which is the world's largest dark matter simulation at present. The execution performance (*4) was 5.67 Pflops on the 98% resources of the K computer system.

This year, the Gordon Bell Prize was awarded singly to the Tsukuba group. A USA group achieved a 14 Pflops execution performance on Sequoia of LLNL for a similar dark matter simulation. Although the peak performance of Sequoia is twice that of K computer, the calculation speed achieved by the Tsukuba group is 2.4 times faster than that by the USA group. This is because the numerical algorithm of the Tsukuba group is more advanced than that of the USA group.

Background

As part of the Strategic Programs for Innovative Research (SPIRE) Field 5 "The origin of matter and the universe" research group led by T. Ishiyama, a research associate in University of Tsukuba, has been developing high performance software for use on the K computer. The group has been developing a massively parallel computing

Twitter @CCS_PR (Nov. 1, 2010～)

- Interactive communication

- Highly effective in disseminating information

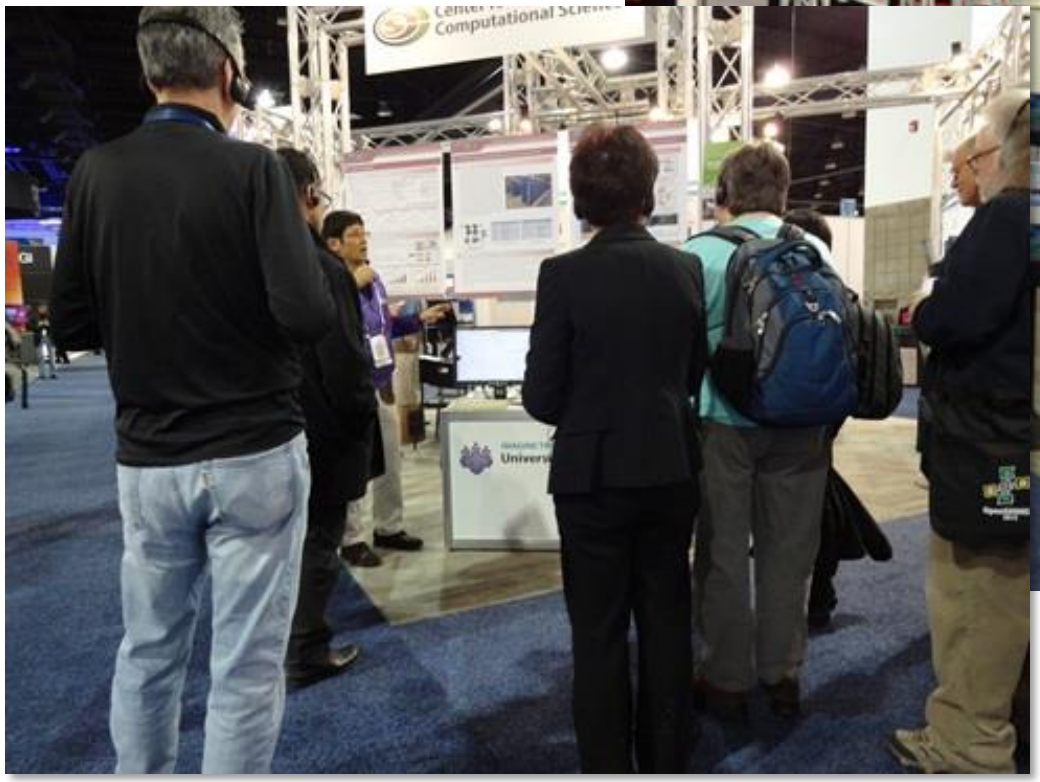
Renovation of the Entrance Lobby

Promotional Items

Screen Cleaner Clear File

SC Exhibition

SC: The International Conference for High Performance Computing, Networking, Storage and Analysis



Risk Management

The bureau created the webpage about the Disaster Contingency Plan.

Disaster Information

The huge earthquake occurred at off shore of Tohoku area, northern Honshu, on March 11, Fri, at 14:46. In this page, information around University of Tsukuba and Tsukuba city are gathered. Each links may not work because of high traffic.

*Please get information from more than one source. Please act calmly without being confused by rumors.

Update: 2011.06.01(Wed) 14:00
Put: 2011.03.16(Wed) 21:30

Information about CCS

Center for Computational Sciences Twitter: @CCS_PR

CCS photos right after the disaster

[PDF 679kB](Japanese)

The safety of all faculty members and students in CCS is confirmed.

About the System of CCS

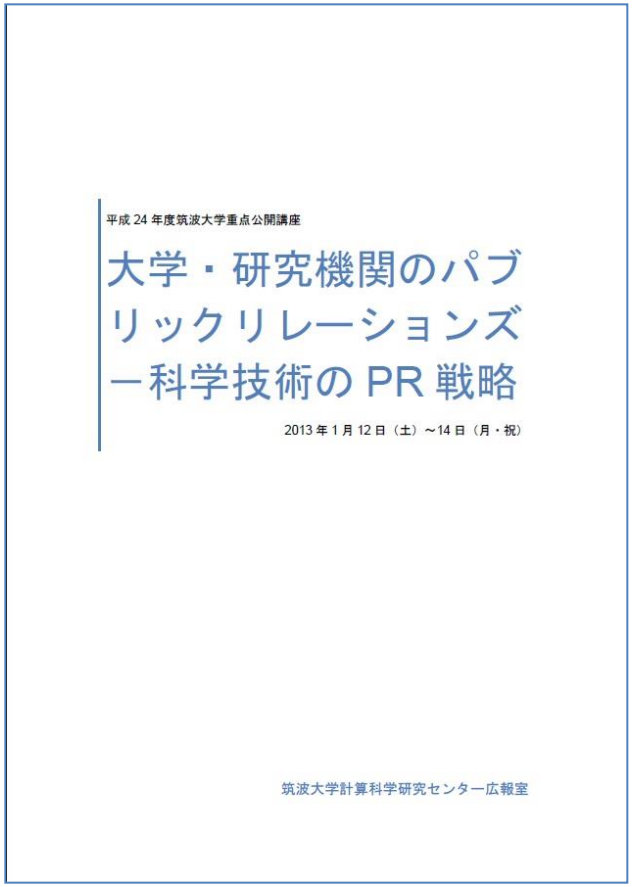
Tap water, electricity, and air conditionings have recovered.

Website and emails in CCS are running.

Research of Public Relations

The members of the bureau made two conference presentations.

In 2013, the **intensive public lectures** about public relations for universities and research institutes was planned and managed by the bureau.



Lecture Note (36pages)

PR STRATEGY AND ACTIVITY OF JICFuS

Joint Institute for Computational Fundamental Science: JICFuS

- JICFuS manages Strategic Programs for Innovative Research (SPIRE) Field 5 “The origin of matter and the universe”

University of Tsukuba
Center for Computational Sciences

KEK
High Energy Accelerator Research Organization

NAOJ
National Astronomical Observatory of Japan

PR Concepts & Activity Policy

PR Concepts

- Aim to increase popularity (awareness) and reliability of fundamental computational science and JICFuS.

Activity Policy

- We will **support public relations and public hearings for researchers** associated with JICFuS.
- We will create content, including websites, in order to **provide information to stakeholders**.
- We will actively **gather information** and **create feedback** mechanisms for researchers within JICFuS.
- We will **build a risk management** organization.
- We will examine and implement methods to **measure name recognition, levels of understanding, and degrees of reliability**.

Stakeholders

- Researchers related to computational sciences
- Researchers outside the field
- Government, Taxpayer
- Citizen

Strong Points

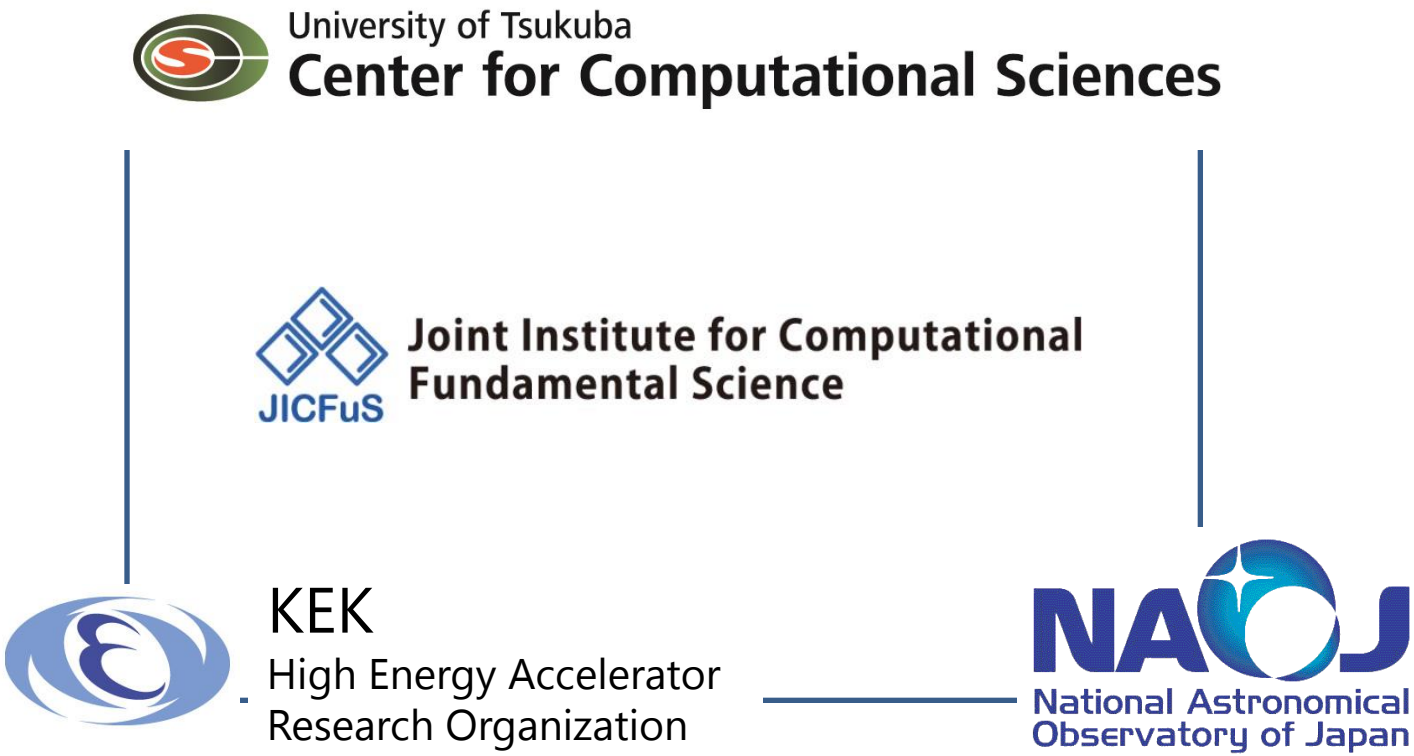
The **research and development** by interdisciplinary fusion of computer science and computational science that CCS, KEK and NAOJ have been doing up to now

The experienced **operation of the computer**

Achievement of **human resource development**

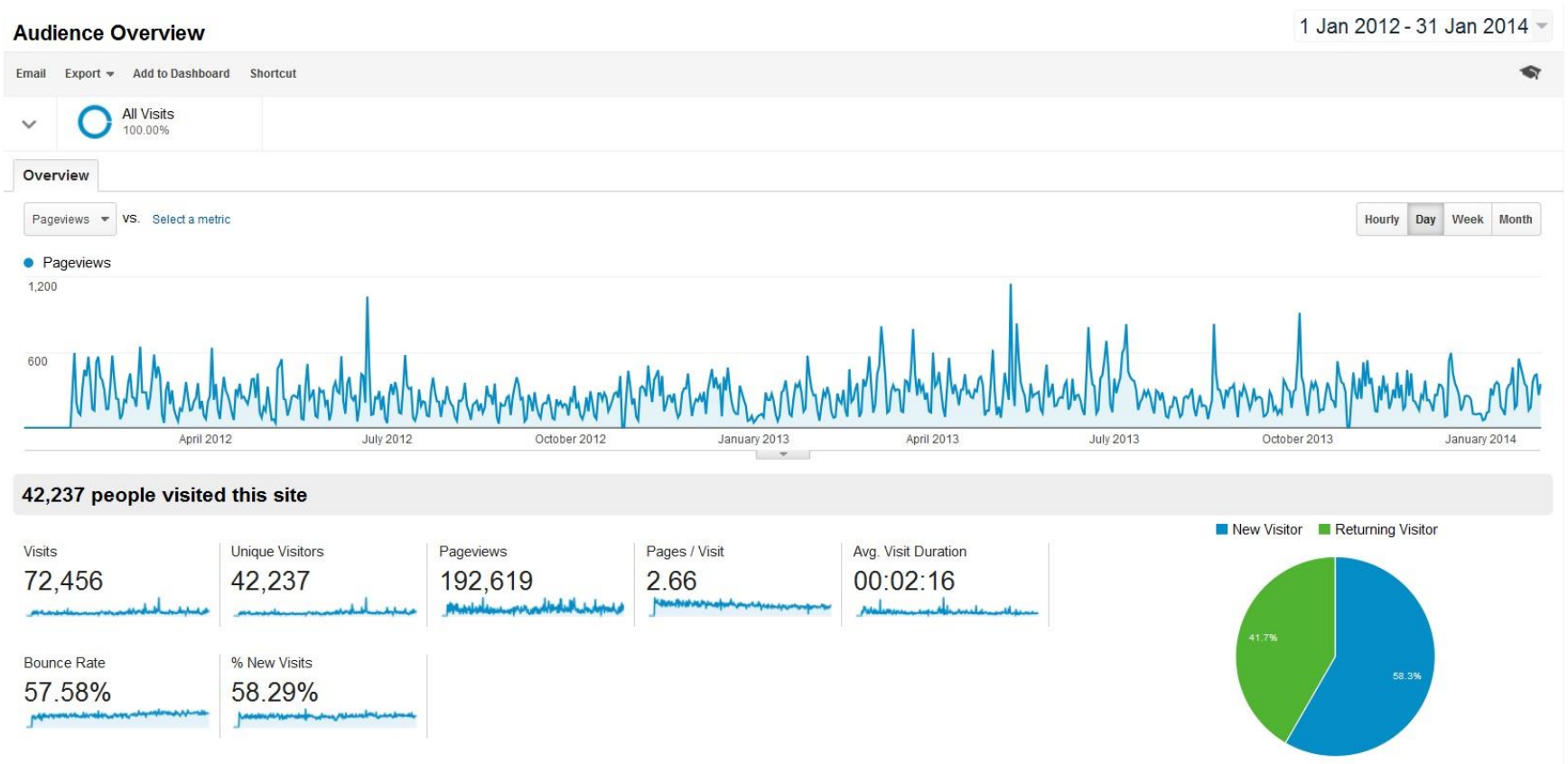
Multi-institutions cooperation of PR

Information management between institutions of different prospectus.



Website: Apr. 11, 2011- http://www.jicfus.jp/en/

Access analysis of the website (JICFuS)



1,510 page views per week in Japanese
80 page views per week in English

Web Magazine “Monthly JICFuS”

Getting to the Heart of Matter

Visiting Italian researcher is seeking to understand what keeps quarks in confinement

Guido Cossu Post-doc researcher at KEK, Tsukuba

Just one month after obtaining his PhD in quantum chromodynamics (QCD) from Pisa University in Italy, Guido Cossu was on his way to Japan to carry out post-doctoral work for a KEK Lattice QCD research group. That was three years ago. The program ended in April, only for Cossu to be immediately offered the opportunity to continue his research in a new five-year program helping a different support group connected with the High Performance Computing Infrastructure (HPCI) program that is investigating a number of fields in fundamental science. He readily agreed.

“I was interested in Japan, its culture, before coming here,” says Cossu. “Japan is also a leader in supercomputers, and the HPCI program means I can continue my post-doctoral work as a theoretical physicist in Lattice QCD using supercomputers like the K computer.”

Before attempting to explain Lattice QCD, we first need to grasp what quantum chromodynamics is all about.

QCD is a field theory explaining the strong nuclear force: the interaction between quarks and the gluons that bind these fundamental particles together, and which in turn keep the nucleus of atoms intact. Historically, the theory was used to describe ordinary matter: namely how protons and neutrons interact. Over time it has evolved and today it is used to describe the quark-gluon interactions that take place during high-energy experiments in accelerators, experiments that can weaken the binding forces enough that the interactions can be analyzed by applying the equations of QCD in their simplest form.

We can think of QCD as an expanded version of the simpler to understand quantum electrodynamics (QED): the quantum theory of the electromagnetic force. QED is used to visualize the interaction

“Monthly JICFuS Movie”
http://www.youtube.com/user/monthlyjicfus

世界最大のシミュレーションでダークマターの正体にせまる

投稿日: 2013年4月1日 作成者: 計算基礎科学連携拠点 広報室

2013.4.8 筑波大学 石山智明 研究員

Quark Card Dealer

Quantum Chromodynamics
Card Game
“Quark Card Dealer” (QCD)

Let the **people who do not read the brochure** (elementary school students to junior high school students) to **know about “quarks”**.

http://www.jicfus.jp/jp/promotion/pr/quark-card-dealer/

Quark Card Dealer

Japanese Version

About **100,000** cards have distributed. (**8,000 players**)

- Sep. 4, 2011 KEK Open Day(1200)
- Nov. 5 RIKEN AICS Open Day(830)
- Nov. 19-20 Science Agora @Tokyo (700)
- Apr. 22, 2012 KEK Open Day(spring) (240)
- Sep. 2 KEK Open Day (1300)
- Oct. 2 RIKEN AICS Open Day（1200）
- Nov. 18 Tsukuba Science Festival (430)
- Apr. 20, 2013 RIKEN Open Day(300)
- Sep. 8 KEK Open Day(1200)
- Oct. 19 RIKEN AICS Open Day(380)
- Dec. 1 Science Museum @Tokyo(110)

English Version

About **9,000** cards have distributed.

- Nov. 12-15, 2012 SC12, Salt Lake City
- Nov. 18-21, 2013 SC13, Denver

Continuous Events on Astronomy

Held social events with astronomers and local residents during the period of the Biannually Meeting of Astronomical Society of Japan.

Date	Place (# of people)
Sep. 18-20, 2011	Kagoshima (103)
Mar. 19-22, 2012	Kyoto (156)
Sep. 19-20, 2012	Oita (31)
Mar. 20-23, 2013	Saitama (243)
Sep. 9, 2013	Sendai (11)
Mar. 19-22, 2014	Tokyo (?)

Future Plan

The bureau continues the activities of public relations based on the concept. Create a mechanism to collect up-to-date research results efficiently and publish to the public. In addition, collect the information from public, and introduce to the researchers in CCS.

Visualization of the Research Results

Using the technology of 4D2U (Four-Dimensional Digital Universe Project, NAOJ), examine the visualization in the field of particle physics, nuclear physics, and other fields of science. Utilize the 3D theater at the annex of the CCS, introduced in 2012.

Study on the Evaluation Method about Public Relations

Make a study on the evaluation method for measuring popularity (awareness), understanding, reliability of the institute and sciences. In addition, we are planning to consider the qualitative and quantitative evaluation of science public relations and spokesman, with researchers of social sciences.