3. Activities

3.1. People and Support

The change in personnel / employee movement in fiscal year 2012 is as follows:

For GCOE program members,

- Professor Hideo Kozono (Mathematics) moved to Waseda University in April 2012.
- Professor Kazuyoshi Yamada (Condensed Matter Physics) moved to KEK High Energy Accelerator Research Organization in April 2012.

For GCOE assistant professors,

- Assistant Professor Mamoru Tanaka (Mathematics) moved to Kyoto University in April 2012.
- Assistant Professor Takato Uehara (Mathematics) moved to Niigata University in April 2012.
- Assistant Professor Takahiro Okabe (Mathematics) was promoted to the lecturer of Hirosaki University in April 2012.
- Assistant Professor Naoto Yokoi (Particle Physics) was assigned to Tohoku University in April 2012.
- Assistant Professor Daisuke Nomura (Particle Physics) was assigned to Tohoku University in April 2012.
- Assistant Prof. Toshiaki Omori (Mathematics) was assigned to Tohoku University in April 2012.
- Assistant Prof. Yuken Miyasaka (Mathematics) was assigned to Tohoku University in April 2012.
- Assistant Prof. Kazushige Nakagawa (Mathematics) was assigned to Tohoku University in April 2012.

Assistant professors employed in 2012 fiscal year move to new institutions after the end of GCOE program (March 31, 2013) as follows:

- Assistant Prof. Takeshi Koike (Nuclear Physics) is promoted to Associate Prof. of Department of Physics, Tohoku University from April 2013.
- Assistant Prof. Mikito Tanaka (Astronomy) moves to Tohoku University Institute for Synergy Interdisciplinary Research from April 2013.
- Assistant Prof. Shumpei Masuda moves to the University of Chicago, James Frank Institute, as a
 postdoctoral fellowship for research abroad of JSPS-Japan Society for the Promotion of Science.
- Assistant Prof. Tsuguhiko Asakawa is promoted to Associate Prof. of Maebashi Institute of Technology.
- Assistant Prof. Satoshi Heguri moves to WPI-AIMR (World Premier International Research Center Initiative; Advanced Institute for Materials Research), Tohoku University.
- Assistant Prof. Joji Nasu moves to the University of Tokyo as a research Fellowship for young scientists of JSPS-Japan Society for the Promotion of Science.
- Assistant Prof. Daisuke Nitta moves to Astronomical Institute of Tohoku University from April 2013.
- Assistant Prof. Toshiaki Omori moves to Mathematical Institute of Tohoku University from April 2013.
- Assistant Prof. Kazushige Nakagawa moves to Mathematical Institute of Tohoku University from April 2013.

Listed below are number of GCOE research assistants (RA) and GCOE assistant professors from 2008 to 2012 fiscal year, and also listed the number of the supports for the research encouragements and for traveling abroad or domestic travel for participating conference/research, and the invited persons and events for seminars, lectures, conference etc. In 2009 fiscal year, GCOE introduced two supports of co-operation propulsive research encouragement and project encouragement, but not after 2010 because of a tight budget.

Especially, from 2009 fiscal year the GCOE employed as super research assistants (SRA) a few of research assistants (RA) who made considerable achievements in previous fiscal year, and then gave them preferential pay.

GCOE Program Members and Support Members

| Fiscal Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|-----------------|------|------|------|------|------|
| Program Members | 26 | 30 | 30 | 29 | 26 |
| Support Members | 7 | 7 | 7 | 6 | 6 |

GCOE Assistant Professors and Research Assistants (RA)

| Fiscal Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------------------|------|--------|--------|-------|--------|
| GCOE Assistant Professors | 5 | 14 | 16 | 16 | 12 |
| Research Assistants (RA) | 75 | 81 (2) | 73 (2) | 78(2) | 76 (3) |

The numbers in parentheses show the super research assistants (SRA) of research assistants (RA).

GCOE Supports for Research Encouragement

| Fiscal Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------------------------------------------------------|------|------|------|------|------|
| Young Scientist Initiative A (Student) | 63 | 67 | 62 | 53 | 43 |
| Young Scientist Initiative B (Assistant Professor) | 5 | 14 | 12 | 10 | 11 |
| Young Scientist Initiative C (Student, JSPS Research Fellow) | ł | 16 | 20 | 1 | 1 |
| Collaborative Research Encouragement "Start-up" | 7 | 7 | 1 | 1 | 1 |
| "Co-operation Propulsive Research" | | 2 | | | |
| "Co-operation Propulsive Project" | | 3 | | | |

Travel s for participating conference/research in Japan and abroad

| Fiscal Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|-------------------|----------|-----------|----------|----------|----------|
| Travels in Japan | 88 (45) | 67 (41) | 118 (49) | 147 (73) | 77 (49)* |
| Travels to abroad | 36 (28) | 18 (13) | 21 (12) | 24 (8) | 19 (15)* |
| sum | 128 (73) | 85 (54) * | 139 (61) | 171 (81) | 96 (64)* |

The numbers are only from the reported data.

The numbers in parentheses show trips with presentations at a conference/meeting.

Invited Persons for seminar, lecture, conference and research

| Fiscal Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|-----------------|---------|---------|---------|---------|---------|
| Invited persons | 60 (27) | 38 (18) | 45 (18) | 41 (19) | 39 (15) |

⁽The numbers are only from the data reported.)

The numbers in parentheses show the invited persons from abroad.

Events of seminar, lecture, conference etc.

| Fiscal Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|--------------------------|------|------|------|------|------|
| Events of symposium etc. | 21 | 34 | 25 | 27 | 20 |

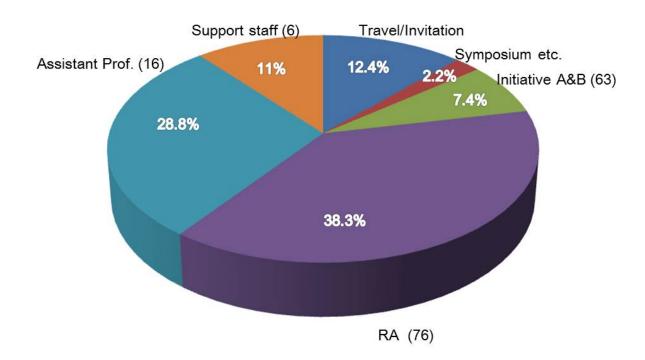
^{*)} not including the research trips of Mathematics.

The GCOE Budget and Financial Support

The total budget of the GCOE in 2012 fiscal year was about 179.9million yen. Any other budget was not supported by the Tohoku University for the lack of GCOE management money. Most of the budget was used to employ the research assistants (RA) of 76 and the GCOE assistant professors of 12, and to support the researches of Young Scientist Research Initiative A/B for the Doctoral course students and the GCOE assistant professors and also the travel expense for participating conferences/researches in Japan and abroad and inviting professors for lecture / seminar / research. The proportion that these costs occupy in the budget is shown in the following figure.

*the numbers in parentheses in the figure are the number of persons included in each subject.

Proportion of each subject-cost in 2011 Fiscal Year



The summary of the GCOE budget from 2008 to 2012 fiscal year

| Fiscal Year | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------------|-------|-------|-------|-------|-------|
| Direct expense | 180.7 | 174.7 | 194.2 | 175.1 | 179.9 |
| Overhead expense | 54.2 | 18.9 | | | |
| Support from Tohoku | | 10 | | | |
| University | | 10 | | | |

(Million yen)

Proportion of each subject-cost in 2008 Fiscal Year Travel Equipment 17% Others Assistant Prof. (14) RA(75) Proportion of each subject-cost in 2009 Fiscal Year Support staff (7) Travel Symposium etc. 9% 9% 4% Initiative A.B.C Collaborative Research RA(75) RA (81)

