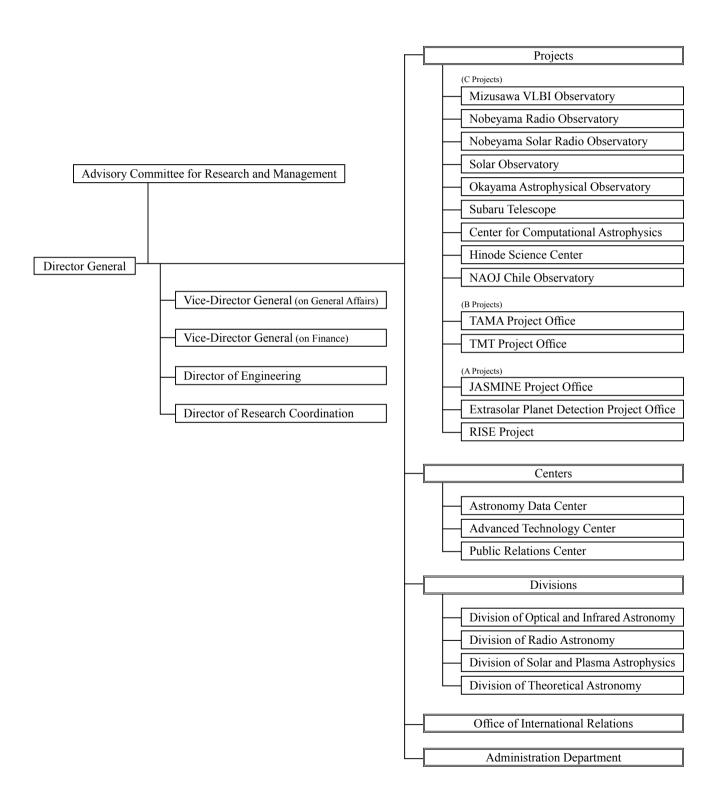
# IV Organization and Management

## 1. Organization



## 2. Advisory Committee for Research and Management

### **Members**

### From universities and related institutes

Umemura, Masayuki University of Tsukuba Ohta, Kouji Kyoto University

Onishi, Toshikazu Osaka Prefecture University Okumura, Sachiko Japan Women's University The University of Tokyo Kajita, Takaaki

o Kusano, Kanya Nagoya University

Nakagawa, Takao Japan Aerospace Exploration Agency

Nagahara, Hiroko The University of Tokyo

Matsumoto, Ryoji Chiba University Yamada, Toru Tohoku University

### From NAOJ

Arimoto, Nobuo Subaru Telescope Iye, Masanori TMT Project Office

Kawaguchi, Noriyuki Mizusawa VLBI Observatory Gouda, Naoteru JASMINE Project Office Mizusawa VLBI Observatory Kobayashi, Hideyuki

Sakurai, Takashi Solar Observatory Takami, Hideki TMT Project Office Tsuneta, Saku Hinode Science Center

Tomisaka, Kohji Division of Theoretical Astronomy

Hasegawa, Tetsuo NAOJ Chile Observatory • Watanabe, Junichi **Public Relations Center** 

• Chairperson O Vise-Chairperson Period: April 1, 2012 - March 31, 2014

## 3. Staff

## **Number of Regular Employees**

(2013/3/31)

	(=, -, -,
Director General	1
Professors	29
Associate Professors	38
Chief Research Engineers	11
Assistant Professors	62
Research Engineers	20
Others	95
Total	256

D' - A - C I	II 1.1 M 1.11 .	For Long Govern	
Director General Vice-Director General	Hayashi, Masahiko	Employee Section Chief	Cata Tautamu
on General Affairs	Watanaha Iuniahi	Staff	Goto, Tsutomu
on Finance	Watanabe, Junichi Kobayashi, Hideyuki	Staff	Kawashima, Ryota Sato, Kanako
Director of Engineering	Takami, Hideki	Research Support Section	Sato, Kanako
Director of Engineering  Director of Research Coordination	•	Chief	Yamaura, Mari
Professor Emeritus (NAOJ)	Sakulai, lakasiii	Staff	Yoshimura, Tetsuya
Froiessor Emeritus (NAO3)	Kakuta, Chuichi	Child Care Leave	rosiiiiiura, reisuya
	Hiei, Eijiro	Staff	Goto, Michiru
	Yamashita, Yasumasa	Staff	Sakuma, Kaori
	Nishimura, Shiro	Financial Affairs Division	Sakuilla, Kaoli
	Kozai, Yoshihide	Manager	Yamaguchi, Yutaka
	Hirayama, Tadashi	Senior Specialist	Miura, Norio
	Miyamoto, Masanori	Audit Specialist	Wilura, Norio
	Nariai, Kyouji	Specialist	Yamanochi, Mika
	Okamoto, Isao	External Funding Specialist	
	Nakano, Takenori	Staff	Ushio, Maiko
	Kodaira, Keiichi	General Affairs Section	Osino, iviaiko
	Yokoyama, Koichi	Chief	Yamanochi, Mika
	Oe, Masatsugu	Budget Section	ramanociii, wirka
	Kinoshita, Hiroshi	Chief	Fujiwara, Kenichi
	Nishimura, Tetsuo	Staff	Hiramatsu, Naoya
	Kaifu, Norio	Asset Management Section	manatsu, raoya
	Ishiguro, Masato	Chief	Yamada, Tomohiro
	Inoue, Makoto	Purchase Validation Center	
	Kawano, Nobuyuki	Chief	Yamada, Tomohiro
	Andou, Hiroyasu	Child Care Leave	ramada, romonno
	Karoji, Hiroshi	Staff	Mizokawa, Yuko
	Chikada, Yoshihiro	Accounting Division	mizonumu, runo
	Noguchi, Kunio	Manager	Hyuga, Tadayuki
	Fujimoto, Masakatsu	Contract Specialist	11) 484, 1444 4111
	Manabe, Seiji	Specialist	Onishi, Tomoyuki
	Miyama, Shoken	Accounting Section	omom, romoj um
Professor Emeritus (Tokyo Astrono	=	Chief	Kamezawa, Takayuki
	Takase, Bunshiro	Staff	Chiba, Satoko
	Akabane, Kenji	Procurement Section	,
	Moriyama, Fumio	Chief	Onishi, Tomoyuki
	Kozai, Yoshihide	Staff	Okubo, Kazuhiko
Staff Emeritus (International La	atitude Observatory of	Staff	Sugawara, Satoshi
Mizusawa)	•	<b>Facilities Division</b>	-
	Hosoyama, Kennosuke	Manager	Asada, Tsuneaki
		General Affairs Section	
<b>Administration Department</b>		Chief	Miura, Susumu
General Manager	Sato, Tadashi	Staff	Nakagawa, Yukie
<b>General Affairs Division</b>		Planning Section	
Manager	Goto, Tsutomu	Chief	Murakami, Kazuhiro
Deputy Manager	Naito, Akihiko	Maintenance Section	
General Affairs Section		Chief	Yasuda, Masanori
Staff	Sugimoto, Naomi	Staff	Shibata, Jumpei
Staff	Yamafuji, Yasuto		
Vehicle Driver	Amemiya, Hidemi	Office of International Relations	
Personnel Section		Director	Sekiguchi, Kazuhiro
Chief	Goto, Tsutomu	Professor	Sekiguchi, Kazuhiro
Senior Staff	Chiba, Yoko	Administration Office	
Staff	Iida, Naoto	Chief	Naito, Akihiko
Staff	Furukawa, Shinichiro	International Academic Aff	airs Section

Chief Kikkawa, Hiroko

#### **Executive Manager, Human Resources**

Specially Appointed Yamamiya, Osamu

Senior Specialist

## Mizusawa VLBI Observatory

Director Kawaguchi, Noriyuki Professor Kawaguchi, Noriyuki Professor Kobayashi, Hideyuki Agata, Hidehiko Associate Professor Associate Professor Shibata, Katsunori Associate Professor Hanada, Hideo Associate Professor Honma, Mareki Chief Research Engineer Satou, Katsuhisa Chief Research Engineer Miyaji, Takeshi Assistant Professor Kameya, Osamu Assistant Professor Kouno, Yusuke Assistant Professor Jike, Takaaki Assistant Professor Sunada, Kazuvoshi Assistant Professor Tamura, Yoshiaki Hagiwara, Yoshiaki Assistant Professor Assistant Professor Hirota, Tomoya Research Engineer Asari, Kazuyoshi Research Engineer Ishikawa, Toshiaki Research Engineer Oshima, Norio Research Engineer Suzuki, Syunsaku Research Engineer Fukushima, Hideo Engineer Ueno, Yuji Engineer Shizugami, Makoto

#### **Administration Office**

General Affairs Section

Chief Shirakaba, Mikio

Accounting Section

Chief Koseki, Tatsuya Staff Kato, Masahiro

### Ishigakijima Astronomical Observatory

Director Hayashi, Masahiko Vice-Director Miyaji, Takeshi Associate Professor Agata, Hidehiko Research Engineer Oshima, Norio Research Engineer Fukushima, Hideo

**Time Keeping Office** 

Director Kawaguchi, Noriyuki Chief Research Engineer Satou, Katsuhisa Research Engineer Asari, Kazuyoshi

#### Nobeyama Radio Observatory

Kuno, Nario Director Professor Kawabe, Ryohei Associate Professor Kuno, Nario Nakamura, Fumitaka Associate Professor Chief Research Engineer Kanzawa, Tomio Assistant Professor Ishizuki, Sumio Assistant Professor Umemoto, Tomofumi Assistant Professor Oshima, Tai

Takano, Shuro Assistant Professor Iwashita, Hirovuki Research Engineer Research Engineer Mikoshiba, Hiroshi Senior Engineer Ishikawa. Shinichi Senior Engineer Miyazawa, Kazuhiko Chief Engineer Handa, Kazuyuki Chief Engineer Miyazawa, Chieko Engineer Wada, Takuya

**Administration Office** 

General Affairs Section

Chief Otsuka, Tomovoshi

Accounting Section

Chief Sasaki, Hiroaki Staff Takahashi, Masaru

### Nobeyama Solar Radio Observatory

Director Hanaoka, Yoichiro Professor Shibasaki, Kiyoto Chief Research Engineer Kawashima, Susumu Assistant Professor Shimojo, Masumi Chief Engineer Shinohara, Noriyuki

### **Solar Observatory**

Director Hanaoka, Yoichiro Professor Sakurai, Takashi Professor Shibasaki, Kiyoto Associate Professor Suematsu, Yoshinori Associate Professor Hanaoka, Yoichiro Chief Engineer Kobiki, Toshihiko Chief Engineer Shinoda, Kazuya Chief Engineer Tanaka, Nobuyuki

### Okayama Astrophysical Observatory

Izumiura, Hideyuki Director Associate Professor Izumiura, Hideyuki Associate Professor Ukita, Nobuharu Chief Research Engineer Okita, Kiichi Chief Research Engineer Kovano, Hisashi Assistant Professor Yanagisawa, Kenshi Research Engineer Sakamoto, Akihiro

### **Administration Office**

Administration Section

Izumiura, Hideyuki Chief

## Subaru Telescope

Director Arimoto, Nobuo Professor Arimoto, Nobuo Professor Iye, Masanori Professor Ohashi, Nagayoshi Professor Mizumoto, Yoshihiko Associate Professor Ichikawa, Shinichi Usuda, Tomonori Associate Professor Associate Professor Kashikawa, Nobunari Associate Professor Kodama, Tadayuki Associate Professor Takato, Naruhisa Associate Professor Takeda, Yoichi

Associate Professor	Noumaru, Junichi
Associate Professor	Hayashi, Saeko
Chief Research Engineer	Yutani, Masami
Assistant Professor	Imanishi, Masatoshi
Assistant Professor	Iwata, Ikuru
Assistant Professor	Komiyama, Yutaka
Assistant Professor	Shirasaki, Yuji
Assistant Professor	Terada, Hiroshi
Assistant Professor	Tomono, Daigo
Assistant Professor	Hayano, Yutaka
Assistant Professor	Minowa, Yosuke
Chief Engineer	Omata, Koji
Chief Engineer	Kurakami, Tomio
Chief Engineer	Tazawa, Seiichi
Chief Engineer	Namikawa, Kazuhito
Chief Engineer	Negishi, Satoru
istration Department	
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#### Admin

Kobayashi, Hideki Manager

General Affairs Section

Chief Sato, Yoko

Accounting Section

Furuhata, Tomoyuki Chief

### Hyper Suprime-Cam

Director Miyazaki, Satoshi Associate Professor Takata, Tadafumi Assistant Professor Komiyama, Yutaka Assistant Professor Nakaya, Hidehiko Assistant Professor Furusawa, Hisanori Chief Engineer Uraguchi, Fumihiro Chief Engineer Kamata, Yukiko

#### **Center for Computational Astrophysics**

Assistant Professor

Acting Director Kokubo, Eiichiro Professor Kokubo, Eiichiro Professor Tomisaka, Koji Associate Professor Nakamura, Fumitaka Assistant Professor Ito, Takashi Assistant Professor Ohsuga, Ken Assistant Professor Kudoh, Takahiro Assistant Professor Kotake, Kei Assistant Professor Tanaka, Masaomi Specially Appointed Takahashi, Hiroyuki Assistant Professor Specially Appointed Takiwaki, Tomoya Assistant Professor Takeda, Takaaki Specially Appointed

## **Hinode Science Center**

Director Tsuneta, Saku Professor Sakurai, Takashi Shibasaki, Kiyoto Professor Professor Tsuneta, Saku Professor Watanabe, Tetsuya Associate Professor Suematsu, Yoshinori Associate Professor Sekii, Takashi

Associate Professor Hara, Hirohisa Assistant Professor Katsukawa, Yukio Assistant Professor Kano, Ryohei Assistant Professor Kubo, Masahito Assistant Professor Shimojo, Masumi Research Engineer Bando, Takamasa Chief Engineer Kobiki, Toshihiko

### **SOLAR-C Project Office**

Director Hara, Hirohisa Professor Sakurai, Takashi Professor Shibasaki, Kivoto Professor Tsuneta, Saku Professor Watanabe, Tetsuya Associate Professor Suematsu, Yoshinori Assistant Professor Katsukawa, Yukio Assistant Professor Kano, Ryohei Assistant Professor Kubo, Masahito Assistant Professor Shimojo, Masumi Research Engineer Bando, Takamasa Chief Engineer Kobiki, Toshihiko Chief Engineer Shinoda, Kazuya

### **NAOJ Chile Observatory**

Director Hasegawa, Tetsuo Professor Iguchi, Satoru Professor Inatani, Junji Professor Ogasawara, Ryusuke Professor Kameno, Seiji Professor Kawabe, Ryohei Professor Tatematsu, Kenichi Professor Hasegawa, Tetsuo Associate Professor Iono, Daisuke Associate Professor Oishi, Masatoshi Associate Professor Okuda, Takeshi Associate Professor Kiuchi, Hitoshi Associate Professor Kuno, Nario Associate Professor Kosugi, Joji Associate Professor Saito, Masao Associate Professor Mizuno, Norikazu Chief Research Engineer Kawashima, Susumu Chief Research Engineer Watanabe, Manabu Assistant Professor Asayama, Shinichiro Assistant Professor Ezawa, Hajime Assistant Professor Oshima, Tai Assistant Professor Kamazaki, Takeshi Assistant Professor Komugi, Shinya Assistant Professor Sawada, Tsuvoshi Assistant Professor Shimojo, Masumi Assistant Professor Sugimoto, Masahiro Assistant Professor Tachihara, Kengo Assistant Professor Nakanishi, Koichiro Hiramatsu, Masaaki Assistant Professor Assistant Professor Matsuda, Yuichi Research Engineer Ashitagawa, Kyoko Chief Engineer Kato, Yoshihiro Chief Engineer Kobiki, Toshihiko

Chief Engineer Nakamura, Kyoko Chiba, Kurazou Specially Appointed Senior Specialist

**Administration Department** 

Manager Yamaguchi, Takahiro Chief Tsukano, Satomi Senior Staff Yamamoto, Shinichi

#### **TAMA Project Office**

Acting Director Ando, Masaki Associate Professor Ando, Masaki Assistant Professor Akutsu, Tomotada Assistant Professor Ueda. Akitoshi Tatsumi, Daisuke Assistant Professor Research Engineer Ishizaki, Hideharu Research Engineer Torii, Yasuo Chief Engineer Tanaka, Nobuyuki

Secondment (to The University of Tokyo)

Assistant Professor Takahashi, Ryutaro Oishi, Naoko Assistant Professor

### **JASMINE Project Office**

Director Gouda, Naoteru Professor Gouda, Naoteru Professor Kobayashi, Yukiyasu Associate Professor Takato, Naruhisa Associate Professor Hanada, Hideo Assistant Professor Araki, Hiroshi Assistant Professor Tsujimoto, Takuji Assistant Professor Nakajima, Tadashi Assistant Professor Noda, Hirotomo Assistant Professor Yano, Taihei Chief Research Engineer Tsuruta, Seiitsu Research Engineer Asari, Kazuyoshi

#### **TMT Project Office**

Director Iye, Masanori Professor Ive, Masanori Professor Takami, Hideki Professor Yamashita, Takuya Associate Professor Aoki, Wakou Associate Professor Usuda, Tomonori Associate Professor Kashikawa, Nobunari Associate Professor Kodama, Tadayuki Associate Professor Takato, Naruhisa Chief Research Engineer Miyashita, Takaaki Assistant Professor Imanishi, Masatoshi Assistant Professor Suzuki, Ryuji Specially Appointed Kozu, Akihito Senior Specialist

### **Extrasolar Planet Detection Project Office**

Tamura, Motohide Director Kokubo, Eiichiro Professor Professor Sasaki, Sho Associate Professor Izumiura, Hideyuki

Tamura, Motohide Associate Professor Assistant Professor Suto, Hiroshi Assistant Professor Nakajima, Tadashi Assistant Professor Nishikawa, Jun Assistant Professor Morino, Jun-ichi Specially Appointed Narita, Norio Assistant Professor

#### **RISE Project**

Director Sasaki, Sho Professor Kawaguchi, Norivuki Professor Gouda, Naoteru Professor Kokubo, Eiichiro Kobayashi, Yukiyasu Professor Professor Sasaki, Sho Associate Professor Hanada, Hideo Associate Professor Matsumoto, Koji Chief Research Engineer Tsuruta, Seiitsu Assistant Professor Araki, Hiroshi Assistant Professor Kouno, Yusuke Assistant Professor Tsujimoto, Takuji Assistant Professor Noda, Hirotomo Assistant Professor Yano, Taihei Research Engineer Asari, Kazuyoshi Research Engineer Ishikawa, Toshiaki Chief Engineer Tazawa, Seiichi

## **Astronomy Data Center**

Director Oishi, Masatoshi Professor Mizumoto, Yoshihiko Professor Kokubo, Eiichiro Associate Professor Oishi, Masatoshi Associate Professor Ichikawa, Shinich Associate Professor Kosugi, Joji Associate Professor Shibata, Katsunori Associate Professor Takata, Tadafumi Associate Professor Noumaru, Junichi Assistant Professor Ito, Takashi Assistant Professor Oe, Masafumi Assistant Professor Katsukawa, Yukio Assistant Professor Shimojo, Masumi Assistant Professor Shirasaki, Yuji Assistant Professor Takano, Syuro Assistant Professor Furusawa, Hisanori Research Engineer Inoue, Goki Fukui, Asami Engineer

#### **JVO Project**

Director Mizumoto, Yoshihiko Oishi, Masatoshi Associate Professor Assistant Professor Shirasaki, Yuji

### **Advanced Technology Center**

Director Tsuneta, Saku Professor Noguchi, Takashi Associate Professor Ando, Masaki Associate Professor Uzawa, Yoshinori

Associate Professor	Sekimoto, Yutaro
Associate Professor	Hara, Hirohisa
Associate Professor	Matsuo, Hiroshi
Associate Professor	Miyazaki, Satoshi
Chief Research Engineer	Okada, Norio
Assistant Professor	Akutsu, Tomotada
Assistant Professor	Iwata, Ikuru
Assistant Professor	Kano, Ryohei
Assistant Professor	Kojima, Takafumi
Assistant Professor	Suzuki, Ryuji
Assistant Professor	Nakaya, Hidehiko
Research Engineer	Iizuka, Yoshizo
Research Engineer	Sato, Naohisa
Research Engineer	Noguchi, Motokazu
Research Engineer	Fukushima, Mitsuhiro
Research Engineer	Fujii, Yasunori
Research Engineer	Mikoshiba, Hiroshi
Chief Engineer	Ikenoue, Bungo
Chief Engineer	Ito, Tetsuya
Chief Engineer	Inata, Motoko
Chief Engineer	Iwashita, Hikaru
Chief Engineer	Uraguchi, Fumihiro
Chief Engineer	Obuchi, Yoshiyuki
Chief Engineer	Kaneko, Keiko
Chief Engineer	Kamata, Yukiko
Chief Engineer	Kubo, Koichi
Chief Engineer	Takahashi, Toshikazu
Chief Engineer	Tamura, Tomonori
Chief Engineer	Fukuda, Takeo
Chief Engineer	Miyazawa, Chieko
Chief Engineer	Waseda, Koichi
Engineer	Tsuzuki, Toshihiro
Engineer	Mitsui, Kenji

#### **Public Relations Center**

Director Fukushima, Toshio Professor Fukushima, Toshio Professor Watanabe, Junichi Associate Professor Agata, Hidehiko Assistant Professor Ikuta, Chisato Assistant Professor Soma, Mitsuru Research Engineer Oshima, Norio Research Engineer Katayama, Masato Research Engineer Sasaki, Goro Research Engineer Fukushima, Hideo Senior Engineer Matsuda, Kou Engineer Nagayama, Shiyogo Specially Appointed Reed, Sarah Jane Senior Specialist

## Chief **Public Relations Office**

Ikuta, Chisato Head Soma, Mitsuru Assistant Professor Specially Appointed Reed, Sarah Jane Senior Specialist

Hori, Mayumi

**Outreach Office · Archive Office** 

Head Agata, Hidehiko Vice-Head Oshima, Norio Research Engineer Sasaki, Goro Senior Engineer Matsuda, Kou

### **Ephemeris Computation Office**

Head Katayama, Masato Senior Engineer Matsuda, Kou

#### **Science Culture Promotion Unit**

Head Agata, Hidehiko

Library

Chief Hori, Mayumi

**Publications Office** 

Head Fukushima, Toshio Vice-Head Fukushima, Hideo

Administration Office

Head Matsuda, Kou

#### **Division of Optical and Infrared Astronomy**

Director Mizumoto, Yoshihiko Professor Arimoto, Nobuo Professor Iye, Masanori Professor Ohashi, Nagayoshi Professor Gouda, Naoteru Professor Kobayashi, Yukiyasu Professor Sekiguchi, Kazuhiro Professor Takami, Hideki Professor Mizumoto, Yoshihiko Professor Yamashita, Takuya Associate Professor Aoki, Wakou Associate Professor Ando, Masaki Associate Professor Izumiura, Hideyuki Associate Professor Ukita, Nobuharu Associate Professor Usuda, Tomonori Associate Professor Kashikawa, Nobunari Associate Professor Kodama, Tadayuki Associate Professor Sasaki, Toshiyuki Associate Professor Takato, Naruhisa Associate Professor Takeda, Yoichi Associate Professor Tamura, Motohide Associate Professor Noumaru, Junichi Associate Professor Hayashi, Saeko Chief Research Engineer Okita, Kiichi Chief Research Engineer Koyano, Hisashi Chief Research Engineer Miyashita, Takaaki Chief Research Engineer Yutani, Masami Assistant Professor Akutsu. Tomotada Assistant Professor Imanishi, Masatoshi Assistant Professor Iwata, Ikuru Assistant Professor Ueda, Akitoshi Assistant Professor Komiyama, Yutaka Assistant Professor Suto, Hiroshi Assistant Professor Soma, Mitsuru Assistant Professor Tatsumi, Daisuke Assistant Professor Tsujimoto, Takuji Assistant Professor Terada, Hiroshi Assistant Professor Tomono, Daigo

Assistant Professor	Nakajima, Tadashi
Assistant Professor	Nishikawa, Jun
Assistant Professor	Hayano, Yutaka
Assistant Professor	Minowa, Yosuke
Assistant Professor	Morino, Jun-ichi
Assistant Professor	Yagi, Masafumi
Assistant Professor	Yanagisawa, Kenshi
Assistant Professor	Yano, Taihei
Specially Appointed	Narita, Norio
Assistant Professor	
Research Engineer	Ishizaki, Hideharu
Research Engineer	Sakamoto, Akihiro
Research Engineer	Torii, Yasuo
Chief Engineer	Omata, Koji
Chief Engineer	Kurakami, Tomio
Chief Engineer	Tazawa, Seiichi
Chief Engineer	Tanaka, Nobuyuki
Chief Engineer	Namikawa, Kazuhito
Chief Engineer	Negishi, Satoru

## **Secondment (to The University of Tokyo)**

Assistant Professor Takahashi, Ryutaro Assistant Professor Oishi, Naoko

## **Division of Radio Astronomy**

Director	Iguchi, Satoru
Professor	Iguchi, Satoru
Professor	Inatani, Junji
Professor	Ogasawara, Ryusuke
Professor	Kameno, Seiji
Professor	Kawaguchi, Noriyuki
Professor	Kawabe, Ryohei
Professor	Kobayashi, Hideyuki
Professor	Sasaki, Sho
Professor	Tatematsu, Kenichi
Professor	Hasegawa, Tetsuo
Associate Professor	Iono, Daisuke
Associate Professor	Okumura, Sachiko
Associate Professor	Kiuchi, Hitoshi
Associate Professor	Kuno, Nario
Associate Professor	Kosugi, Joji
Associate Professor	Saito, Masao
Associate Professor	Shibata, Katsunori
Associate Professor	Hanada, Hideo
Associate Professor	Honma, Mareki
Associate Professor	Matsumoto, Koji
Associate Professor	Mizuno, Norikazu
Chief Research Engineer	Kawashima, Susumu
Chief Research Engineer	Kanzawa, Tomio
Chief Research Engineer	Satou, Katsuhisa
Chief Research Engineer	Tsuruta, Seiitsu
Chief Research Engineer	Miyaji, Takeshi
Chief Research Engineer	Watanabe, Manabu
Assistant Professor	Asayama, Shinichiro
Assistant Professor	Araki, Hiroshi
Assistant Professor	Ishizuki, Sumio
Assistant Professor	Umemoto, Tomofumi

Assistant Professor	Ezawa, Hajime
Assistant Professor	Oshima, Tai
Assistant Professor	Kamazaki, Takeshi
Assistant Professor	Kameya, Osamu
Assistant Professor	Kouno, Yusuke
Assistant Professor	Komugi, Shinya
Assistant Professor	Sawada, Tsuyoshi
Assistant Professor	Jike, Takaaki
Assistant Professor	Sugimoto, Masahiro
Assistant Professor	Sunada, Kazuyoshi
Assistant Professor	Takano, Shuro
Assistant Professor	Tachihara, Kengo
Assistant Professor	Tamura, Yoshiaki
Assistant Professor	Nakanishi, Koichiro
Assistant Professor	Noda, Hirotomo
Assistant Professor	Hagiwara, Yoshiaki
Assistant Professor	Hiramatsu, Masaaki
Assistant Professor	Hirota, Tomoya
Assistant Professor	Matsuda, Yuichi
Assistant Professor	Miyoshi, Makoto
Research Engineer	Asari, Kazuyoshi
Research Engineer	Ashitagawa, Kyoko
Research Engineer	Ishikawa, Toshiaki
Research Engineer	Iwashita, Hiroyuki
Research Engineer	Suzuki, Syunsaku
Senior Engineer	Ishikawa, Shinichi
Senior Engineer	Miyazawa, Kazuhiko
Chief Engineer	Kato, Yoshihiro
Chief Engineer	Nakamura, Kyoko
Chief Engineer	Handa, Kazuyuki
Chief Engineer	Miyazawa, Chieko
Engineer	Ueno, Yuji
Engineer	Shizugami, Makoto
Engineer	Wada, Takuya

## Division of Solar and Plasma Astrophysics

	- I J
Director	Watanabe, Tetsuya
Professor	Sakurai, Takashi
Professor	Shibasaki, Kiyoto
Professor	Tsuneta, Saku
Professor	Watanabe, Tetsuya
Associate Professor	Suematsu, Yoshinori
Associate Professor	Sekii, Takashi
Associate Professor	Hanaoka, Yoichiro
Associate Professor	Hara, Hirohisa
Assistant Professor	Katsukawa, Yukio
Assistant Professor	Kano, Ryohei
Assistant Professor	Kubo, Masahito
Assistant Professor	Shimojo, Masumi
Research Engineer	Bando, Takamasa
Chief Engineer	Kobiki, Toshihiko
Chief Engineer	Shinoda, Kazuya
Chief Engineer	Shinohara, Noriyuki

## **Division of Theoretical Astronomy**

Director Tomisaka, Koji

Professor	Kokubo, Eiichiro	Assistant Professor	Kotake, Kei
Professor	Tomisaka, Koji	Assistant Professor	Tanaka, Masaomi
Professor	Yoshida, Haruo	Assistant Professor	Hamana, Takashi
Associate Professor	Kajino, Toshitaka	Specially Appointed	Zenitani, Seiji
Associate Professor	Nakamura, Fumitaka	Assistant Professor	
Assistant Professor	Ohsuga, Ken	Specially Appointed	Fujimoto, Keizo
Assistant Professor	Kudoh Takahiro	Assistant Professor	

## **Personnel Change**

Date	Name	Change	New Affiliated Institute, Position	Previous Affiliated Institute, Position
2012/4/1	Hayashi, Masahiko	Appointed	Director General	The University of Tokyo
2012/5/21	Matsuda, Yuichi	Hired	Division of Radio Astronomy (NAOJ Chile Observatory ), Assistant Professor	California Institute of Technology
2012/6/1	Ando, Masaki	Hired	Division of Optical and Infrared Astronomy (TAMA Project Office), Associate Professor	Kyoto University
2012/9/1	Kojima, Takafumi	Hired	Advanced Technology Center, Assistant Professor	
2012/11/1	Miyashita, Takaaki	Hired	Division of Optical and Infrared Astronomy (TMT Project Office), Chief Research Engineer	
2013/1/1	Minowa, Yosuke	Hired	Division of Optical and Infrared Astronomy (Subaru Telescope), Assistant Professor	RCUH
2013/3/1	Kameno, Seiji	Hired	Division of Radio Astronomy (NAOJ Chile Observatory), Professor	Kagoshima University
2013/3/1	Okuda, Takeshi	Hired	Division of Radio Astronomy (NAOJ Chile Observatory), Associate Professor	Nagoya University
2012/4/1	Kokubo, Eiichiro	Promoted	Division of Theoretical Astronomy, Professor	Division of Theoretical Astronomy, Associate Professor
2012/4/1	Koyano, Hisashi	Promoted	Division of Optical and Infrared Astronomy, Chief Research Engineer	Division of Optical and Infrared Astronomy, Research Engineer
2012/4/1	Tsuruta, Seiitsu	Promoted	Division of Radio Astronomy, Chief Research Engineer	Division of Radio Astronomy, Research Engineer
2012/7/1	Saito, Masao	Promoted	Division of Radio Astronomy (NAOJ Chile Observatory), Associate Professor	Division of Radio Astronomy (NAOJ Chile Observatory), Assistant Professor
2012/10/18	Iguchi, Satoru	Promoted	Division of Radio Astronomy (NAOJ Chile Observatory), Proffesor	Division of Radio Astronomy (NAOJ Chile Observatory), Associate Professor
2012/10/18	Iono, Daisuke	Promoted	Division of Radio Astronomy (NAOJ Chile Observatory), Associate Professor	Division of Radio Astronomy (NAOJ Chile Observatory), Assistant Professor
2012/10/18	Aoki, Wakou	Promoted	Division of Optical and Infrared Astronomy (TMT Project Office), Associate Professor	Division of Optical and Infrared Astronomy (Subaru Telescope), Assistant Professor
2012/4/1	Inoue, Goki	Reassigned	Astronomy Data Center, Research Engineer	Astronomy Data Center, Chief Engineer
2012/4/1	Sato, Naohisa	Reassigned	Advanced Technology Center, Research Engineer	Advanced Technology Center, Chief Engineer
2012/4/1	Fujii, Yasunori	Reassigned	Advanced Technology Center, Research	Advanced Technology Center,

2012/5/7	Morita, Koichiro	Resigned		Division of Radio Astronomy (NAOJ Chile Observatory ), Professor
2013/3/31	Tsuneta, Saku	Resigned	Institute of Space and Astronautical Science	Division of Solar and Plasma Astrophysics, Professor
2013/3/31	Sasaki, Sho	Resigned	Osaka University	Division of Radio Astronomy, Professor
2013/3/31	Tamura, Motohide	Resigned	The University of Tokyo	Division of Optical and Infrared Astronomy, Associate Professor
2013/3/31	Ando, Masaki	Resigned	The University of Tokyo	Division of Optical and Infrared Astronomy, Associate Professor
2013/3/31	Kotake, Kei	Resigned	Fukuoka University	Division of Theoretical Astronomy, Assistant Professor
2013/3/31	Tachihara, Kengo	Resigned	Nagoya University	Division of Radio Astronomy, Assistant Professor
2013/3/31	Inatani, Junji	Retired		Division of Radio Astronomy, Professor
2013/3/31	Okita, Kiichi	Retired		Division of Optical and Infrared Astronomy, Chief Research Engineer

## **Engineering Staff**

Miyaji, Takeshi

Retired

2013/3/31

Date	Name	Change	New Affiliated Institute, Position	<b>Previous Affiliated Institute, Position</b>
2012/8/1	Shizugami, Makoto	Hired	Division of Radio Astronomy (Mizusawa VLBI Observatory), Engineer	Mizusawa VLBI Observatory, Technical Expert
2012/10/1	Fukui, Asami	Hired	Astronomy Data Center, Engineer	
2013/2/1	Tsuzuki, Toshihiro	Hired	Advanced Technology Center, Engineer	

Division of Radio Astronomy,

Chief Research Engineer

2012/9/1	Kaneko, Keiko	Promoted	Advanced Technology Center, Chief	Advanced Technology Center,
2012/9/1	Kalleko, Kelko	Fiomoteu	Engineer	Engineer

### Administrative Staff

Date	Name	Change	New Affiliated Institute, Position	Previous Affiliated Institute, Position
2012/4/1	Sato, Tadashi	Hired	Administration Department, General Manager	Hitotsubashi University
2012/4/1	Miura, Norio	Hired	Administration Department Financial Affairs Division, External Funding Specialist, Senior Specialist	The University of Tokyo
2012/4/1	Koseki, Tatsuya	Hired	Mizusawa VLBI Observatory Accounting Section, Chief	Iwate University
2012/8/1	Sasaki, Hiroaki	Hired	Nobeyama Radio Observatory Accounting Section, Chief	Shinshu University
2012/9/1	Ushio, Maiko	Hired	Administration Department Financial Affairs Division, Staff	
			Okavama Astrophysical Observatory	Administration Department

2012/4/1	Sato, Takashi	Promoted	Okayama Astrophysical Observatory Administration Section, Chief	General Affairs Division General Affairs Section, Senior Staff
2012/8/1	Yamaura, Mari	Promoted	Administration Department General Affairs Division Research Support Section, Chief	Administration Department General Affairs Division Research Support Section, Senior Staff
2012/8/1	Sato, Yoko	Promoted	Subaru Telescope Administration Department General Affairs Section, Chief	Subaru Telescope Administration Department General Affairs Section, Senior Staff

2012/8/1	Tsukano, Satomi	Promoted	NAOJ Chile Observatory Administration Department Administration Section, Chief	Administration Department Accounting Division Procurement Section, Senior Staff
2012/8/1	Yamamoto, Shinichi	Promoted	NAOJ Chile Observatory Administration Department Administration Section, Senior Staff	NAOJ Chile Observatory Administration Department, Staff
2012/9/1	Masuda, Akio	Reassigned	National Institutes of Natural Sciences	Mizusawa VLBI Observatory Accounting Section, Staff
2012/4/24	Mizushima, Satoru	Resignated		Administration Department Accounting Division Procurement Section, Chief
2013/1/7	Sato, Takashi	Resignated		Okayama Astrophysical Observatory Administration Section, Chief
2013/1/31	Kawai, Tomio	Resignated		Administration Department General Affairs Division, Deputy Manager
2012/7/31	Kobayashi, Hideyuki	Resignated	Shinshu University	Nobeyama Radio Observatory Accounting Section, Chief
2013/3/31	Yasuda, Masanori	Resignated	The University of Tokyo	Administration Department Facilities Division Maintenance Section, Chief
2013/3/31	Shirakaba, Mikio	Resignated	Iwate University	Mizusawa VLBI Observatory General Affairs Section, Chief
2013/3/31	Asada, Tsuneaki	Retired		Administration Department Facilities Division, Manager
2013/3/31	Naito, Akihiko	Retired		Office of International Relations Administration Office, Chief

Employee on Annual Salary System

Date	Name	Change	New Affiliated Institute, Position	<b>Previous Affiliated Institute, Position</b>
2012/4/1	Chiba, Kurazou	Hired	NAOJ Chile Observatory, Specially Appointed Senior Specialist	Division of Radio Astronomy, Chief Research Engineer
2012/4/1	Yamaguchi, Takahiro	Hired	NAOJ Chile Observatory, Specially Appointed Senior Specialist	
2012/4/1	Zenitani, Seiji	Hired	Division of Theoretical Astronomy, Specially Appointed Assistant Professor	
2012/4/1	Narita, Norio	Hired	Division of Optical and Infrared Astronomy (Extrasolar Planet Detection Project Office), Specially Appointed Assistant Professor	
2012/4/1	Fujimoto, Keizo	Hired	Division of Theoretical Astronomy, Specially Appointed Assistant Professor	RIKEN
2012/4/1	Takahashi, Hiroyuki	Hired	Division of Theoretical Astronomy (Center for Computational Astrophysics), Specially Appointed Assistant Professor	
2012/4/1	Takiwaki, Tomoya	Hired	Division of Theoretical Astronomy (Center for Computational Astrophysics), Specially Appointed Assistant Professor	
2012/4/1	Takeda, Takaaki	Hired	Division of Theoretical Astronomy (Center for Computational Astrophysics), Specially Appointed Assistant Professor	
2012/5/1	Kozu, Akihito	Hired	TMT Project Office, Specially Appointed Senior Specialist	

2012/9/18	Reed, Sarah Jane	Hired	Public Relations Center, Specially Appointed Senior Specialist	
2012/10/1	Yamamiya, Osamu	Hired	Specially Appointed Senior Specialist (Executive Manager, Human Resources)	

2013/3/31	Takeda. Takaaki	Contract	Division of Theoretical Astronomy (Center for Computational
2013/3/31	Takeda, Takaaki	Expired	Astrophysics), Specially Appointed Assistant Professor

In the Research and Academic Staff personnel change list, "Reassigned" is used only for reassignments from Engineering Staff. In the Engineering Staff and Administrative Staff personnel change list, "Reassigned" is used only for reassignments from/to other NINS organizations.

## **Visiting Professors / Visiting Associate Professors / Visiting Research Fellows (Domestic)**

Period: April 1, 2012 - March 31, 2013

No.	Affiliated Institute	Position at NAOJ	Name	Host Project / Center / Division
1	Japan Aerospace Exploration Agency	Visiting Professor	Sakamoto, Seiichi	NAOJ Chile Observatory
2	Osaka Prefecture University	Visiting Professor	Onishi, Toshikazu	NAOJ Chile Observatory
3	Ibaraki University	Visiting Professor	Momose, Munetake	NAOJ Chile Observatory
4	Yamaguchi University	Visiting Professor	Fujisawa, Kenta	Mizusawa VLBI Observatory
5	Kobe University	Visiting Professor	Hayashi, Yoshi-yuki	Astronomy Data Center / Center for Computational Astrophysics
6	Nihon University	Visiting Professor	Suzuki, Toshio	Division of Theoretical Astronomy
7	Keio University	Visiting Associate Professor	Oka, Tomoharu	NAOJ Chile Observatory
8	University of Aizu	Visiting Associate Professor	Hirata, Naru	RISE Project
9	Nagoya University	Visiting Associate Professor	Masuda, Satoshi	Nobeyama Solar Radio Observatory
10	Ibaraki University	Visiting Associate Professor	Yonekura, Yoshinori	Mizusawa VLBI Observatory
11	Japan Aerospace Exploration Agency	Visiting Associate Professor	Iwata, Takahiro	RISE Project
12	Kyoto University	Visiting Research Fellow	Nomura, Hideko	Division of Theoretical Astronomy
13	Hokkaido University	Visiting Associate Professor	Sorai, Kazuo	Mizusawa VLBI Observatory
14	Hiroshima University	Visiting Research Fellow	Kato, Tsunehiko	Center for Computational Astrophysics

## **Foreign Visiting Researchers**

Period: April 1, 2012 - March 31, 2013

No.	Name	Period	Affiliated Institute
1	Barkin, Yury	2012.05.16~2012.11.15	Moscow State University
2	Famiano, Michael Andrew	2012.05.16~2013.01.05	Western Michigan University
3	Rai Choudhuri, Arnab	2012.05.24~2012.06.29	Indian Institute of Science
4	Judge, Philip Gordon	2012.07.01~2012.08.28	National Center for Atmospheric Research

## 4. Commissioned Graduate Students / Research Fellows etc.

## **Commissioned Graduate Students**

<b>Doctoral Course</b>	Affiliated Institute	Period	Supervisor
Takekoshi, Tatsuya	Hokkaido University	2012/4/1~2012/6/30	Kawabe, Ryohei
Oya, Masahito	Nihon University	2012/4/1~2013/3/31	Tamura, Motohide
Horie, Masaaki	Nihon University	2012/4/1~2013/3/31	Tamura, Motohide
Takahashi, Yasuhiro	The University of Tokyo	2012/4/1~2013/3/31	Tamura, Motohide
Fukushi, Hinako	The University of Tokyo	2012/4/1~2012/9/30	Arimoto, Nobuo
Akashi, Toshiya	Tokyo Institute of Technology	2012/4/1~2013/3/31	Nakamura, Fumitaka
Nitta, Tomu	University of Tsukuba	2012/4/1~2013/3/31	Sekimoto, Yutaro
Kuroiwa, Koichi	Osaka Prefecture University	2012/4/1~2013/3/31	Uzawa, Yoshinori
Nomura, Mariko	Ochanomizu University	2012/10/1~2013/3/31	Tomisaka, Koji

Master's Course	Affiliated Institute	Period	Supervisor
Dogasaki, Chisei	Meisei University	2012/4/1~2013/3/31	Tamura, Motohide
Ui, Takahiro	Hiroshima University	2012/4/1~2013/3/31	Yamashita, Takuya
Takemura, Shinji	Gifu University	2012/4/1~2013/3/31	Kawaguchi, Noriyuki
Kobayashi, Takuji	Tokyo University of Agriculture and Technology	2012/4/1~2013/3/31	Tamura, Motohide
Toyoda, Atsushi	Gifu University	2012/4/1~2013/3/31	Kawaguchi, Noriyuki
Gondo, Rina	Ochanomizu University	2012/7/1~2013/3/31	Ando, Masaki

## JSPS (Japan Society for the Promotion of Science) Foreign Research Fellows

	<u>. •                                     </u>		
Name	Program	Period	Host Researcher
			,

None

## JSPS (Japan Society for the Promotion of Science) Postdoctoral Research Fellows

Name	Host Researcher
Ishioka, Ryoko	Sekiguchi, Kazuhiro
Ishikawa, Ryoko	Hara, Hirohisa
Koyama, Yusei	Arimoto, Nobuo
Hori, Yasunori	Kokubo, Eiichiro
Ishikawa, Shinnosuke	Tsuneta, Saku
Utsumi, Yosuke	Miyazaki, Satoshi

# 5. Budget

## Expenses (FY 2012)

	(Unit: ¥1,000)
Employee Personnel Expenses	3,081,890
Operating Expenses	8,026,102
Subsidy Expenses	40,707
Industry-Academia Research Expenses and Donation Expenses	409,934
Facilities Maintenance Expenses	209,284
Total	11,767,917

## KAKENHI (Grants-in-Aid for Scientific Research) for FY 2012

KAKENHI (Series of Single-year Grants)

	Number of	Budget (Unit: ¥1,000)			
Research categories	Selected Projects	Total	Direct Funding	Indirect Funding	
Scientific Research on Innovative Areas (Research in a proposed research area)	6	200,460	154,200	46,260	
Scientific Research (S)	2	137,020	105,400	31,620	
Scientific Research (A)	10	148,850	114,500	34,350	
Scientific Research (B)	5	35,100	27,000	8,100	
Scientific Research (C)	3	2,860	2,200	660	
Specially Promoted Research	1	182,780	140,600	42,180	
Young Scientists (B)	2	1,820	1,400	420	
JSPS Fellows	6	5,100	5,100	0	
Research Activity start-up	2	2,990	2,300	690	
Total	37	716,980	552,700	164,280	

## KAKENHI (Multi-year Fund)

	Number of	Budget (Unit: ¥1,000)			
Research categories	Selected Projects	Total	Direct Funding	Indirect Funding	
Scientific Research (C)	10	13,351	10,270	3,081	
Challenging Exploratory Research	3	6,760	5,200	1,560	
Young Scientists (B)	9	11,570	8,900	2,670	
Total	22	31,681	24,370	7,311	

## KAKENHI (Partial Multi-year Fund)

Research categories	Number of	0 (	es of Single-y Unit: ¥1,000	year Grants) )	U	t (Multi-year Unit: ¥1,000	,
Research categories	Selected Projects	Total	Direct Funding	Indirect Funding	Total	Direct Funding	Indirect Funding
Scientific Research (B)	2	10,270	7,900	2,370	8,840	6,800	2,040
Young Scientists (A)	1	6,630	5,100	1,530	4,940	3,800	1,140
Total	3	16,900	13,000	3,900	13,780	10,600	3,180

# 6. Open Use

Туре	Project / Center	Category	Number of Accepted Proposals	Total Number of Researchers	Notes
		188cm Reflector Telescope (Project Program)	1	27	1 Institute
	Okayama Astrophysical	188cm Reflector Telescope (Normal Program)	19	114	9 Institutes
	Observatory	- Toochi Renector Telescope (Normai i Togram)	1)	(2)	1 Country
	Observatory	188cm Reflector Telescope (Student Program)	0	0	0
	Subaru Telescope		87	373	45 Institute
				(38)	10 Countries
	Solar Observatory		*1	*1	*1
		45-m telescope (General Proposal)	32	187	41 Institutes,
			32	(36)	10 Countries
	Nobeyama Radio	45-m telescope (Education Program)	1	4	2 Institutes
	Observatory	45-m telescope (Short Program)	9	47	13 Institutes
				(3)	1 Country
		45-m telescope (Back-up Program)	1	9	4 Institutes
Open Use at	Nobeyama Solar Rad	lio Observatory	32	131 (93)	39 Institutes 13 Countries
Project / Center	Mizusawa VLBI	VED A		43	15 Institutes
	Observatory	VERA	6	(17)	6 Countries
	Astronomy Data Cen	ter	122	122	23 Institutes, Total amount of requested data 10,514 GB
	Center for Computati	ional Astrophysics	172	172	
	Hinode Science Cent	er	95	95	43 Institutes
	Timode Science Cent	Ci	73	(24)	11 Countries
	Advanced Technology Center	Facility Use	26	111 (1)	53 Institutes
	reciniology Center	Joint Research and Development	8	72	23 Institutes
	NIA OL CL'IL	ALMA	113	1034	180 Institutes
	NAOJ Chile Observatory	ALMA	113	(908)	29 Countries
	Ouser valury	ASTE	11	72	15 Institutes
Joint Developm	ent Research		9		8 Institutes
Joint Research			3		3 Institutes
Research Assen	nbly		16		9 Institutes

The number of foreign researchers shown in brackets () is included in the total.

Notes show the number of institutes and foreign countries represented by the proposal PIs. The country count does not include Japan.

<sup>\*1</sup> The observation data is open to the public on the web. No application is needed to use the data.

## 7. Activities at the Graduate University for Advanced Studies and other **Graduate Course Education**

## (1) Department of Astronomical Science, School of Physical Sciences, the Graduate University for **Advanced Studies**

The Graduate University for Advanced Studies was established as an independent graduate university without undergraduate courses via partnerships with inter-university research institutes for the sake of advancing graduate education.

There used to be four schools - Cultural and Social Studies, Mathematical and Physical Sciences, Life Science, and Advanced Sciences before the reorganization of the School of Mathematical and Physical Sciences into the schools of Physical Sciences, High Energy Accelerator Science, and Multidisciplinary Sciences in April 2004. Now the total of six schools are offering doctoral education and research opportunities.

NAOJ has been accepting three-year doctoral course students since FY 1992 and five-year students since FY 2006 for the Department of Astronomical Science at the School of Physical Sciences. (The School of Mathematical and Physical Sciences was reorganized into the School of Physical Sciences in April 2004.)

## 1. Objective of the Department of Astronomical Science

The Department of Astronomical Science aims to train students, through observational, theoretical or instrument development research in astronomy or in related field, in an environment with the most advanced observational instruments and supercomputers, as researchers who work at forefront of world-class research; experts who carry out the development of advanced technology; and specialists who endeavor in education and public outreach activities equipped with advanced and specialized knowledge.

Numbers of students to be admitted:

Two (per year in five-year doctoral course)

Three (per year in three-year doctoral course)

Degree: Doctor of Philosophy

#### 2. Admission Policy

The Department of Astronomical Sciences seeks students with a strong interest in astronomy and the Universe; a passion for unraveling scientific questions through theoretical, observational, and instrument development research; and students who have not only basic academic skills, but who also have the needed theoretical and creative aptitude for advanced research.

#### 3. Department Details (Course Offerings)

#### Optical and Near Infrared Astronomy

[Educational and Research Guidance Field] Ground-based astronomy / Optical and infrared telescope system / Planets / Sun, stars and interstellar matter /Galaxies and cosmology

### Radio Astronomy

[Educational and Research Guidance Field] Ground-based astronomy / Radio telescope system / Sun, stars and interstellar matter / Galaxies

## General Astronomy and Astrophysics

[Educational and Research Guidance Field] High-precision astronomical measurement / Astronomy from space / Data analysis and numerical simulation / Earth and planets / Sun, stars and interstellar matter / Galaxies and cosmology

#### 4. Course-by-Course Education Program to Develop Student Research Capability and Aptitude

The School of Physical Sciences began its "Course-by-Course Education Program to Develop Student Research Capability and Aptitude" in FY 2009 as part of MEXT's Program for "Enhancing Systematic Education in Graduate Schools", offering four specific courses to the students: the Basic Course, the Advanced Research Course, the Project Research Course, and the Development Research Course. In FY 2012, the Department of Astronomical Science accepted four students in the Basic Course and three students in the Advanced Research Course. The Department also offered the e-learning class "Introduction to Observational Astronomy II" as a schoolwide common basic subject, as well as the "Exercise in Scientific English" class, in order to provide a good foundation for students at the graduate school.

In order to better prepare students for the international stage, the Department hosted the Asia Winter School, as well as the 2012 Summer Student program at Mitaka, Mizusawa and Hawaii campuses to allow undergraduate students a chance to experience research at the Department of Astronomical Science. In addition to the existing Research Assistant system, the Department also provided Associate Researcher positions for the students of the Department of Astronomical Science.

## (2) Staff and Students in the Department of Astronomical Science, School of Physical Sciences, the **Graduate University for Advanced Studies**

Number of Staff (2013/3/31)

Chair of the Department of Astronomical Science	1
Optical and Near Infrared Astronomy Course	
Professors	8
Associate Professors	12
Assistant Professors	10
Radio Astronomy Course	
Professors	7
Associate Professors	9
Assistant Professors	20
General Astronomy and Astrophysics Course	
Professors	9
Associate Professors	12
Assistant Professors	15
Total	103

## Graduate Student List (29 students)

## 1st year (7 students)

Name	Principal Supervisor	Supervisor
Yang, Yi	Tamura, Motohide	Usuda, Tomonori
Ishikawa, Shogo	Kashikawa, Nobunari	Kodama, Tadayuki
Onishi, Kyoko	Iguchi, Satoru	Kuno, Nario
Onitsuka, Masahiro	Tamura, Motohide	Takato, Naruhisa
Sakurai, Junya	Miyazaki, Satoshi	Kobayashi, Yukiyasu
Shimakawa, Rizumu	Kodama, Tadayuki	Arimoto, Nobuo
Suzuki, Taiki	Oishi, Masatoshi	Tamura, Motohide

## 2nd year (5 students)

Name	Principal Supervisor	Supervisor
Aoki, Sumire	Arimoto, Nobuo	Kodama, Tadayuki
Saito, Yuriko	Hayashi, Saeko	Kashikawa, Nobunari
Hashizume, Katsuya	Tomisaka, Koji	Osuga, Ken
Matsuzawa, Ayumu	Iguchi, Satoru	Saito, Masao
Oh, DaeHyeon	Tamura, Motohide	Takami, Hideki

## 3rd year (4 students)

Name	Principal Supervisor	Supervisor
Kataoka, Akimasa	Tomisaka, Koji	Nakamura, Fumitaka
Shino, Nagisa	Honma, Mareki	Shibata, Katsunori
Min, Cheul Hong	Honma, Mareki	Shibata, Katsunori
Toshikawa, Jun	Kashikawa, Nobunari	Kodama, Tadayuki

## 4th year (8 students)

Name	Principal Supervisor	Supervisor
Ishizaki, Yoshifumi	Kashikawa, Nobunari	Iye, Masanori
Imase, Keisuke	Kodama, Tadayuki	Kashikawa, Nobunari
Suenaga, Takuya	Tamura, Motohide	Usuda, Tomonori
Sakai, Nobuyuki	Honma, Mareki	Shibata, Katsunori
Sako, Nobuharu	Watanabe, Tetsuya	Sekii, Takashi
Sukom, Amnart	Tamura, Motohide	Izumiura, Hideyuki
Kaithakkal, Anjali John	Suematsu, Yoshinori	Tsuneta, Saku
Pan, Hsi-An	Kuno, Nario	Iono, Daisuke

## 5th year (5 students)

J (				
Name	Principal Supervisor	Supervisor		
Shibuya, Takatoshi	Iye, Masanori	Kashikawa, Nobunari		
Kwon, JungMi	Tamura, Motohide	Hayashi, Saeko		
Zhao, ZhengShi	Arimoto, Nobuo	Kodama, Tadayuki		
Sato, Yaeko	Tamura, Motohide	Hayashi, Saeko		
Horii, Shun	Watanabe, Junichi	Agata, Hidehiko		

### Research Student (1 student)

Name	Supervisor	
Kawauchi, Kiyoe	Tamura, Motohide	

## (3) Education and Research Collaboration with The University of Tokyo

### Number of Staff

Professors	9
Associate Professors	4
Total	13

Graduate Student List of The University of Tokyo (28 students)

Name	Supervisor
Aso, Yusuke	Ohashi, Nagayoshi
Iwaki, Daichi	Iye, Masanori
Ohashi, Satoshi	Mizuno, Norikazu
Saito, Toshiki	Kawabe, Ryohei
Shibagaki, Shota	Kajino, Toshitaka
Shibata, Takashi	Kokubo, Eiichiro
Sekiguchi, Sigeyuki	Sekimoto, Yutaro
Tagawa, Hiromichi	Gouda, Naoteru
Miyagawa, Kenta	Tsuneta, Saku
Aoki, Kunichika	Hara, Hirohisa
Izumida, Shian	Kajino, Toshitaka
Otomo, Yuzo	Kawabe, Ryohei
Koyamatsu, Shin	Ohashi, Nagayoshi
Sato, Senichi	Iye, Masanori

Name	Supervisor
Sekine, Masakazu	Sekimoto, Yutaro
Hara, Takuji	Gouda, Naoteru
Hara, chihomi	Kawabe, Ryohei
Fujii, Kosuke	Mizuno, Norikazu
Akiyama, Kazunori	Kobayashi, Hideyuki
Kiyokane, Kazuhiro	Mizuno, Norikazu
Fujii, Akihiko	Kokubo, Eiichiro
Ueda, Junko	Kawabe, Ryohei
Hayashi, Takayuki	Kobayashi, Hideyuki
Higuchi, Yuichi	Iye, Masanori
Rusu Cristian Eduard	Iye, Masanori
Koyama, Shoko	Kobayashi, Hideyuki
Tadaki, Kenichi	Iye, Masanori
Nakashima, Asami	Yamashita, Takuya

## (4) Education and Research Collaboration with Other Graduate Schools

Name	Affiliated Institute	Supervisor	
Watanabe, Dota	Toho University	Matsuo, Hiroshi	

## (5) Universities Collaborating with NAOJ

Kyoto University Kagoshima University Toho University Hiroshima University Tohoku University

## (6) Graduate Course Education

Degrees Achieved with NAOJ Facilities

Name	Thesis
Zhao, Zheng-Shi (Doctor of Philosophy, SOKENDAI)	Origins of Blue Straggler Stars in Open Clusters, Globular Clusters and Dwarf Spheroidal Galaxies
Shibuya, Takatoshi (Doctor of Philosophy, SOKENDAI)	Cosmic Reionization Revealed by Distant Galaxies and Role of Extragalactic Outflow
Kwon, Jung Mi (Doctor of Philosophy, SOKENDAI)	Near-Infrared Linear and Circular Polarimetry in Star Forming Regions
Horii, Shun (Master of Science, SOKENDAI)	Possibility of meteor showers originated from various comets

## 8. Award Winners

Hayano, Yutaka	National Institutes of Natural Sciences Young Researcher Award, 2012	2012/6/10	Award Winning
Ohsuga, Ken	The 28th Kodansha Science Publication Award, 2012	2012/9/21	Award Winning
Solar Observatory, Long time scale persistent observation of the sun and making database team	NAOJ Director General Prize (Research)	2013/2/28	Award Winning
All staffs working at the restaurant in the Nobeyama Radio Observatory	Special Letter of Appreciation	2013/2/28	Presented
Ohsuga, Ken	The 17th PASJ Excellent Paper Award, 2012	2013/3/21	Award Winning

# 9. Overseas Travel / Important Dates / Public Access to Facilities

## (1) Research and Academic Staff Overseas Travel

category	Business Trip	Training	Total
country / area	_		
Korea	45	0	45
China	40	0	40
Hong Kong	1	0	1
Taiwan	30	0	30
Malaysia	0	0	0
Singapore	4	0	4
Thailand	4	0	4
Philippines	0	0	0
Indonesia	0	0	0
Other areas in Asia	8	0	8
UK	18	0	18
Italy	4	0	4
Germany	15	0	15
France	15	0	15
Russia	6	0	6
Other areas in Europe	36	0	36
USA	68	0	68
Canada	3	0	3
Hawaii	57	0	57
Guam, Saipan	0	0	0
Australia	13	0	13
Other areas in Oceania	0	0	0
Mexico	0	0	0
Brazil	1	0	1
Other areas in South and Central America *	62	0	62
Middle East	0	0	0
Africa	1	0	1
others	0	0	0
Total	431	0	431

<sup>\*</sup> Most travelers to South and Central America went to Chile.

# (2) Important Dates (April 1, 2012 – March 31, 2013)

<b>2012</b> April 1:	Masahiko Hayashi appointed NAOJ Director General.
April 5:	17th Astronomy Lecture for Science Reporters held, with 52 participants from 33 organizations and 23 NAOJ members in attendance.
April 15:	Third Open Observatory event held at the Ibaraki University Center for Astronomy and the NAOJ Mizusawa VLBI Observatory Ibaraki Station, with nearly 1,000 visitors in attendance.
May 5:	Subaru Telescope, along with other Mauna Kea observatories, shared the excitement of astronomy by providing special exhibits and hands-on sessions at AstroDay held at a local shopping mall in Hilo.
May 26:	Spring 2012 Special Stargazing Party held at Okayama Astrophysical Observatory, with 101 visitors in attendance (out of 698 applicants).
May 29–31:	Subaru Spring School for undergraduate and graduate students held at Mitaka, with 14 participants selected from 26 applicants.
June 22:	Memorial ceremony held at Mitaka for the late Prof. Koh-ichiro Morita, who unexpectedly passed away on May 7, with nearly 110 NAOJ and non-NAOJ mourners in attendance. Following an address from NAOJ Director General Masahiko Hayashi, NAOJ Chile Observatory Director Tetsuo Hasegawa gave a retrospective on Prof. Morita's life and accomplishments, and NINS President Katsuhiko Sato and former NAOJ Director General Shoken Miyama offered their condolences. After the ceremony, mourners offered flowers in memory of the late Professor.
June 30 – July 1:	A pre-event preparatory workshop was held to impart a deeper understanding of the research to high school students scheduled to attend the sixth Z-star Research Team event using the radio telescope at the VERA Mizusawa station to search for water masers.
July 22:	Subaru Telescope staff had a stargazing program in Hawaii for intermediate school students from north-eastern Japan who had suffered losses in the 2011-tsunami.
July 26–27:	Summer Break Junior Astronomical Observation Sessions was held at Mitaka.
July 30  – August 3:	The workshop of Radio Astronomical Observation held for undergraduate students at the Nobeyama Radio Observatory, with 12 participants in attendance.
August 1 - September 30:	Third International Festival of Scientific Visualization — Connecting with Others Through Science — held, with 1,008,597 visitors attending over the course of the festival.
August 4: Subaru Telescope staff gave a public lecture in English at Mauna Kea Visitor Information Station	
August 7–9:	Sixth Z-star Research Team event held for high school students from Iwate Prefecture. Invitations were sent again this year to high school students around the prefecture, including in tsunami-struck areas, with seven participants attending. One team succeeded in detecting water maser radiation.
August 11:	Iwate Galaxy Festival 2012, a special event for the Mizusawa region, held with nearly 2,200 visitors in attendance.
August 11:	Special open house of VERA Iriki Station held conjointly with the Yaeyama Kogen Star Festival 2012, with nearly 3,500 visitors in attendance.
August 15–17:	Chura-boshi Research Team workshop for high school students in Okinawa Prefecture held at VERA Ishigakijima Astronomical Observatory, with 21 participants in attendance. The Murikabushi telescope was used to search for water masers, and an image processing workshop was held.
August 18–26:	2012 South Island Star Festival held in conjunction with a special open house event at the VERA Ishigakijima Station and the Ishigakijima Astronomical Observatory. The event started with nearly 8,000 visitors to a dimmed-light stargazing event graced by a stunning night sky of unprecedented clarity; an astronomical observation party at the Ishigakijima Astronomical Observatory was also blessed with good weather and attended by 582 visitors; special open house at the VERA Station was attended by 563 visitors; for a total festival participation of nearly 9,760 visitors.
August 20 – September 4:	Subaru Telescope hosted an undergraduate student from a Japanese university in its summer student program.
August 25:	Special open house event held at NAOJ Nobeyama, with 3,308 visitors in attendance.
August 25:	Special open house event held at Okayama Astrophysical Observatory, with 607 visitors in attendance.
September 1:	Subaru Telescope staff hosted a seminar in Mitaka for undergraduate students of Japanese universities in preparation for an observation program using Subaru Telescope.
September 8 – October 8:	Fourth Tokyo International Science Festival held, with more than 30,000 visitors attending over the duration of the festival.
September 26:	30-Year Anniversary Ceremony, Commemorative Lecture, and Banquet for the Nobeyama Radio Observatory held in the city of Hokuto in Yamanashi Prefecture with about 160 attendants.

September 28:	Subaru Telescope staff gave a public lecture and special Moon Viewing event in English at 'Imiloa Astro. Center in Hilo.		
October 5:	Commemorative ceremony held at Oshu City Cultural Hall (Z Hall) for the 10th anniversary since the VERA Project began observations in earnest, with nearly 200 visitors in attendance. After the ceremony, a "VERA Summit" for the heads of local municipalities hosting VERA observational stations and a celebratory banquet were held.		
October 8: A lecture meeting "The Extremely Large Telescope TMT: Redrawing Our Image of the Universe" was about 250 visitors in attendance.			
October 13:	Fall 2012 Special Stargazing Party held at Okayama Astrophysical Observatory, with 109 visitors in attendance (out of 331 applicants).		
October 20:	Subaru Telescope staff gave a public lecture at 'Imiloa Astronomy Center in Hilo.		
October 26–27:	Mitaka Open House Day held, with 4,431 visitors in attendance.		
October 30 – November 4:	Twelve students from Japanese universities visited Subaru Telescope to experience observations.		
November 3–4:	A symposium held on the concept of the NAOJ Museum.		
November 11:	"A New Vision of the Universe Explored by ALMA" public lecture held by NAOJ, with nearly 250 audience members in attendance.		
November 21:	A ceremony for FY 2012 continuous service recognition held.Six NAOJ staff members were recognized: Nobuo Arimoto, Katsunori Shibata, Mika Yamauchi, Chieko Miyazawa, Kyoko Nakamura, and Takeo Fukuda.		
December 2: A lecture meeting "Investigating the Mysteries of the Dark Universe: the Origin of the Universe, the Form Planets, and the Birth of Life" held, with nearly 250 visitors in attendance.			
December 3–8:	An international symposium "New Trends in Radio Astronomy in the ALMA Era: The 30th Anniversary of Nobeyama Radio Observatory" held at Hakone, with nearly 170 participants in attendance.		
December 10:	Subaru Telescope Director Arimoto gave a public talk in English at Lyman Museum in Hilo.		
2013			
January 25:	Subaru Telescope staff participated in the Job/Career Expo in Hilo for high school students and give demonstrations in English.		
January 26:	Subaru Telescope staff held a special exhibit and presentations in English for grades 4-12 during Onizuka Science Day at the University of Hawaii at Hilo.		
February 11:	Star Island 2012 open house event held at VERA Ogasawara Station, with 244 visitors in attendance. Four dimensional digital movies using 4D2U technology were screened to massive acclaim. The astronomy lecture held the previous day also had a full audience.		
February 23:	Astronomer from Subaru Telescope gave a public lecture in English at the University of Hawaii at Hilo.		
March 8–15:	Subaru Telescope staff gave special lectures during the Journey through the Universe program in Hilo. They interacted with 1,222 students in 56 classrooms, in local elementary, intermediate, and high schools.		
March 13:  ALMA inauguration ceremony held at the operations support facility, with more than 350 visitors in including Chilean President Sebastián Piñera. Nearly 70 invited guests from Japan attended, inclu Vice Minister of Education, Culture, Sports, Science and Technology Teru Fukui. Representatives newspapers and TV stations also conducted interviews.			
March 29:	A ceremony for FY 2012 continuous service recognition for retiring staff members held. Five staff members were recognized: Tsuneaki Asada, Junji Inatani, Kiichi Okita, Akihiko Naito, and Takeshi Miyaji.		

## (3) Public Access to Facilities

#### 1) Mitaka Campus

[Open year-round]

Dates: April to March, 10:00-17:00

Every day except for New Year season (December 28-

January 4) Visitors: 17,111

Open facilities: 65-cm Telescope Dome (Observatory History Museum), 20-cm Telescope Dome, Solar Tower Telescope, Exhibit Room, Housing of Repsold Transit Instrument (Transit Instrument Museum), Astronomical Instruments Museum, Gautier Meridian Circle, Old Library

[Regular Star Partys]

Dates: Friday before second Saturday; fourth Saturday

Visitors: 4,725 (23 events)

Open facility: 50-cm Public Telescope

[Special Open-House Event] Mitaka Open House Day

Dates: October 26 (Fri), 2012, 14:00-19:00 October 27 (Sat), 2012, 10:00-19:00

Topic: The Life of a Star: From Baby Star to Supernova

Visitors: 4,431

Co-hosted by NAOJ, the Institute of Astronomy at the University of Tokyo, and the Graduate University for Advanced Studies at the Department of Astronomical Science, the special two-day open-house event has been held annually since 2010. The always popular lecture event featured presentations related to this year's main theme given by representatives of the Institute of Astronomy at the University of Tokyo and NAOJ ("At the Ends of the Milky Way" by Naoto Kobayashi, associate professor, the University of Tokyo; "On the Front Lines of Star Formation Research: Stars Still Being Born" by Fumitaka Nakamura, associate professor, NAOJ, Graduate University for Advanced Studies; "Supernova Explosions: The Awe-Inspiring Deaths of Stars" by Masaomi Tanaka, assistant professor, NAOJ.)

The weather was favorable on both days, and for the first time in seven years the nighttime observation session was successfully held. All reserch projects participated with a full list of activities including public tours of normally restricted facilities, interactive exhibits, mini-lectures, popular games and paper crafts for children, and other attractions for visitors of all ages. Group tours, 4D2U theater screenings, and guided tours were also held. See the report for the Public Relations Center for more details.

#### 2) Mizusawa Campus

[Open year-round]

Dates: April to March (except for New Year season), 9:00-

17:00 daily Visitors: 16,807

Open facilities: Kimura Hisashi Memorial Museum, VERA

20-m antenna, 10-m VLBI antenna

An open house event was held on campus with cooperation from the Oshu Space and Astronomy Museum (Yugakukan),

which opened in the city of Oshu in April 2008.

[Special Open House] Held as part of Iwate Galaxy Festival 2012 (hours: 10:00-21:00)

Date: August 11 (Sat), 2012, 10:00-16:00

Visitors: 2,200 (total for Galaxy Festival, out of which 650

participated in the open house)

Like last year, this event was co-hosted with the Ihatov Space Action Center and the city of Oshu. The event opened with a local elementary school marching band performance. It featured workshop corners run by local university and high school students and other forms of community interactions.

Attractions included discussions of the research results obtained from the VERA and RISE projects; a tour of the 20-m parabolic antenna; a commemorative photo booth; plastic bottle rockets; a guiz game; and guided tours of the Kimura Hisashi Memorial Museum.

Prof. Kouji Onishi of Nagano National College of Technology gave a lecture entitled "What Are Black Holes?" and Prof. Eiichiro Kokubo of NAOJ gave a lecture entitled "Exploring the Origins of the Earth and Moon Using Supercomputers." Both featured lively question and answer sessions at the end. At 650 visitors, attendance was unfortunately slightly less than in previous years due to the overlap with the Obon holidays. Iwate Galaxy Festival 2012 evening events (including a drum performance by local preschoolers, a miniature concert by a local brass band, and a stargazing session) brought the festival to a successful finish.

The NAOJ would like to thank all of the local town associations, astronomy clubs, tourist associations, and other parties who helped host the Galaxy Festival.

#### Iriki: VERA Iriki Station

[Open year-round]

Dates: April to March (except for New Year season)

Visitors: 5,219 [Special Open House]

Date: August 11 (Sat), 2012, 10:00-21:00

Visitors: 3,500

The special open house event was held again this year in conjunction with Yaeyama Kogen Star Festival 2012 hosted by an executive committee consisting primarily of members from Satsuma-Sendai city hall and Kagoshima University. Regular annual antenna tours, observational equipment demonstrations, mini-lectures, and observation sessions were held in the VERA 20-m radio telescope and 1-m optical/infrared telescope facilities. These events proved to be a hit with visitors all day long. Nearly 300 students experienced the joy of scientific experimentation through the popular physics experiments.

#### Ogasawara: VERA Ogasawara Station

[Open year-round]

Dates: April to March (except for New Year season)

Visitors: 4,511

[Special Open House]

Date: February 11 (Mon, a national holiday), 2013, 10:00-

17:00 Visitors: 244

This year, our special open house event was held under the name "Star Island 2012." In previous years, the event had been held in October or November so local residents could participate more easily. This year's event was held in February, but even being held at a different time, the event proved popular with community members and attendance was comparable to previous years. Like last year, a free shuttle bus service was offered. Attractions included discussions of research results from the VERA and RISE projects, hands-on operating sessions at the 20-m radio telescope, mystery experiment corners, and quiz games. In addition, a four-dimensional digital planetarium show featuring 4D2U technology was a hit with audience members. On February 10, standing-room only crowds at the Ogasawara Visitor Center listened to the lecture "Surveying the Heavens and the Earth: Using Cosmic Radio Waves in Terrestrial Surveys" presented by Yoshihiro Fukuzaki of the Geographical Survey Institute and the lecture "Earth in the Universe" given by Prof. Eiichiro Kokubo of NAOJ. The NAOJ also cooperated in a stargazing session hosted by the local astronomy club on February 11 which was blessed with favorable weather and attended by nearly 40 visitors.

#### Ishigakijima: VERA Ishigakijima Station

[Open year-round]

Dates: Daily from April through March (except the New Year season); premises are open to the public 24 hours/day, and observation rooms are open during the hours of 10:00-16:30.

Visitors: 2.607 [Special Open House]

Dates: August 18 (Sat) to August 26 (Sun), 2012, 10:00-

17:00 Visitors: 563

The Special Open House was held in conjunction with the 2012 South Island Star Festival.

As in previous years, attractions included antenna tours, photo booth stickers, merchandise, commemorative lectures, and exhibits.

### Ishigakijima: Ishigakijima Astronomical Observatory

[Open year-round]

Dates: April to March

Open Hours: Wednesdays through Sundays (except for New

Year season), 10:00-17:00

Stargazing sessions: Evenings on Saturdays, Sundays, Holidays, and Star Festival Week (19:00-22:00), three 30-minute sessions per evening (four in August)

Visitors: 8,527

Open facilities: Murikabushi 105-cm optical/infrared telescope, observations dome interior (including astronomical image exhibites)

[2012 South Island Star Festival]

Dates: August 18 (Sat) to August 26 (Sun), 2012

Visitors: 9,762

This year's event was co-hosted with NHK Okinawa as part of the festivities commemorating the 40th anniversary of the return of Okinawa and the 65th anniversary of Ishigaki City. Nearly 8,000 visitors attended a dimmed-light stargazing event graced by a stunning night sky of unprecedented clarity. Nearly 100 visitors attended the commemorative lecture on the final day of the festival. Nearly 700 people also visited the VERA Observational Station, including 370 visitors on the special open house day. More than 9,700 visitors attended the South Island Star Festival as a whole.

#### 3) Nobeyama Campus

[Open year-round]

Dates: Daily, 8:30-17:00 (except for December 29 to

January 3) Visitors: 56,075

Open facilities: 45-m radio telescope, millimeter array,

radioheliograph, etc. (exteriors only)

[Special Open House]

Date: August 25 (Sat), 2012, 9:30-16:00

Visitors: 3,308

The FY 2012 Nobeyama Special Open House event was graced with favorable weather and attended by 3,308 visitors, the greatest number in the past three years. As a special event, Prof. Ryohei Kawabe gave two invited lectures on the subject of "Exploring the Mysteries of Dark Space Using the Large Radio Telescope ALMA," both to packed audiences. Mini-lectures were also held at the Solar Radio Observatory Corner and the ALMA/ASTE Corner. Other popular attractions returning from previous years included a stamp rally, a Q&A corner, an observation demonstration using the 45-m radio telescope, and a workshop on making your own solar radio signal detector. This year's event also featured a panel exhibit of photographs and historical information from the time of construction to commemorate the 30th anniversary of the Nobeyama Radio Observatory and the 20th anniversary of the radioheliograph.

#### 4) Okayama Astrophysical Observatory

[Open year-round]

Dates: 9:00-16:30 daily except during the mirror aluminization

period in June Visitors: 15,677

Open facilities: 188-cm reflecting telescope viewing window

[Special Open House]

Date: August 25 (Sat), 2012, 9:30-16:30

Visitors: 607

The special open house event for FY 2012 was co-hosted with the Okayama Astronomical Museum on August 25 (Sat).

Graduate school of Tokyo Institute of Technology associate

professor Bun'ei Sato's approximately 1 hour lecture on "Is There Another Earth? The Search for Exoplanets" in the dome of the 188-cm reflecting telescope was a huge success. Nearly 100 audience members attended. The Public Relations Center assisted in broadcasting lecture over the Internet. The alwayspopular tours of the main mirror of the 188-cm reflecting telescope conducted in the morning and afternoon filled to their maximum capacities of 120 participants. Two students from the Tokyo Institute of Technology assisted in the open house for the 50-cm reflecting telescope dome; two members of the Division of Optical and Infrared Astronomy helped with the Astronomy O&A corner: and three members of the Mizusawa VLBI Observatory assisted with reception. Planetarium showings, solar observation using the 15-cm telescope, astronomy-related crafts, constellation/astronomy bingo, and an astronomy quiz game held at the Okayama Astronomical Museum provided fun for visitors of all ages.

The special open house event was co-hosted with the Asakuchi City Board of Education, with support from the Yakage Town Board of Education. In particular, the Observatory would like to thank the members of the Asakuchi City Board of Education for their considerable assistance in arranging the complimentary shuttle bus service between the Observatory and Kamogata Station on the JR San'yo Main Line.

[Special Stargazing Partys]

Date: May 26 (Sat), 2012, 18:30-22:45

Visitors: 101

224 applications representing 698 applicants were received.

Mars and Saturn were viewed.

Date: October 13 (Sat), 2012, 17:00-21:15

Visitors: 109

116 applications representing 331 applicants were received. The first-magnitude star Vega in Lyra and the M15 globular cluster were viewed.

Two special Stargazing Parties were co-hosted with the Okayama Astronomical Museum in spring and fall. Maximum participation for each special session was 100. Because applications have exceeded capacity for both sessions in previous years, this year participants were selected by lottery, with 120 winners being selected to allow for cancellations.

Main events included tours of the Okayama Astronomical Museum, planetarium shows, astronomical observation using the 188-cm reflecting telescope, and descriptions of the night sky.

## 5) Subaru Telescope

[Summit Facility]

Dates open for public tour: 140 (these dates are listed in the public tour program page at Subaru Telescope's web site)

Public tour visitors: 1,134

Special tour visitors: 122 visits, 688 visitors

As some special tours were conducted during public tour programs, the total number of actual visitors was 1,638.

[Base Facility]

Special tour visitors: 38 visits, 542 visitors

# 10. Library, Publications

## (1) Library

Number of books in each library (2013/3/31)

	Japanese Books	Foreign Books	Total
Mitaka	16,332	44,938	61,270
Okayama	217	3,272	3,489
Nobeyama	1,224	6,225	7,449
Mizusawa	4,942	18,067	23,009
Hawaii	1,456	3,941	5,397
Total	24,171	76,443	100,614

Number of journal titles in each library (2013/3/31)

Trumout of journal titles in turn notally (2015/5/51)					
	Japanese Journals	Foreign Journals	Total		
Mitaka	584	756	1,340		
Okayama	4	18	22		
Nobeyama	16	82	98		
Mizusawa	659	828	1,487		
Hawaii	23	40	63		
Total	1,286	1,724	3,010		

## (2) Publications

Here we list continuing publications produced by NAOJ in FY 2012.

The data is based on publications delivered to the libraries.

## Mitaka

- 01) Report of the National Astronomical Observatory of Japan, Vol. 14 No. 3-4, 1 issue
- 02) Annual Report of the National Astronomical Observatory of Japan (in Japanese), No. 24, 2011, 1 issue
- 03) Annual Report of the National Astronomical Observatory of Japan (in English), Vol. 14, Fiscal Year 2011, 1 issue
- 04) National Astronomical Observatory Reprint, No. 2382-2463, 88 issues
- 05) Calendar and Ephemeris, 2013, 1 issue
- 06) NAOJ News, No. 225-236, 12 Issues
- 07) Guide to the National Astronomical Observatory of Japan (Japanese), 1 issue
- 08) Chronological Scientific Tables, 2013, 1 issue

## Okayama

09) Okayama Users Meeting Fiscal Year 2012 (23rd Optical/Infrared Users Meeting), 1 issue