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Workshop on Submillimeter-Wave Receiver Technologies in Eastern Asia
November 14 (Sunday) -16 (Tuesday) , 2010
(Toyota auditorium of Nagoya University)

<http://www.a.phys.nagoya-u.ac.jp/workshop/rxws11/>

-Solar-Terrestrial Environment Laboratory of Nagoya University
-Osaka Prefecture University
-Advanced Technology Center, National Astronomical Observatory of Japan
and ALMA Project Office, National Astronomical Observatory of Japan

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2010/11/14

12:50-13:00 Workshop opening and welcome talk

13:00-15:20 Project status report

[1] 13:00-13:20 Kenichi Kikuchi (ISS Science Project Office)

How to Launch SIS Mixer Into Space - In the Case of JEM/SMILES

[2] 13:20-13:40 Taku Nakajima (Nobeyama Radio Observatory)

The New Observation System for the NRO 45-m Millimeter Wave Telescope

[3] 13:40-14:00 Zhen Lou (tentative) (Purple Mountain Observatory)

Research and Development Activities at PMO Purple Mountain Observatory

[4] 14:00-14:20 Hirofumi Inoue (The University of Tokyo)

Heterodyne Receivers on ASTE

[5] 14:20-14:40 Atsushi Nishimura (Osaka Prefecture University)

The 1.85m Mm-Submm Telescope for Large Scale Molecular Cloud Survey

[6] 14:40-15:00 Do-Heung Je (Korea Astronomy & Space Science Institute)

The Status of Phase Compensation System Development for KVN Receivers

[7] 15:00-15:20 Yasuo Fukui (Nagoya University Southern Observatory)

NANTEN 2 Project

15:20-15:30 Break

15:30-17:30 Submm mixers and detectors

[8] 15:30-15:50 Hsian-Hong Chang

(Academia Sinica Institute of Astronomy and Astrophysics)

Superconducting SIS Mixers with Vertically Stacked Junctions

- [9] 15:50–16:10 Matthias Kroug (National Astronomical Observatory of Japan)
SIS Mixers for the 790 – 950 GHz Band
- [10] 16:10–16:30 Ming-Jye Wang
(Academia Sinica, Institute of Astronomy and Astrophysics)
Development of Superconducting Devices in ASIAA: Current status and
Future Plans
- [11] 16:30–16:50 Masato Naruse (National Astronomical Observatory of Japan)
Development of a Sub-Millimeter Camera With Superconducting Resonators
- [12] 16:50–17:10 Hiroki Watanabe (GUAS/KEK)
Development of Microwave Kinetic Inductance Detectors (MKIDs) for Cosmic
Microwave Background Polarization Detection With the LiteBIRD Satellite
- [13] 17:10–17:30 Takashi Noguchi (National Astronomical Observatory of Japan)
Imaginary Part of the Superconducting Gap Energy and Its Influence on
Low-Temperature Devices

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9:00–10:20 SIS mixers and receivers

- [14] 9:00–9:20 Chao-Te Li
(Academia Sinica Institute of Astronomy and Astrophysics)
SIS Mixer Development for the Submillimeter Array at ASIAA
- [15] 9:20–9:40 Koichi Kuroiwa
(National Astronomical Observatory/Osaka Prefecture University)
Performance of Superconducting NbTiN Waveguide for Terahertz SIS Mixer
- [16] 9:40–10:00 Dong Liu (tentative) (Purple Mountain Observatory)
345GHz Superconductor Integrate Receiver Development for POST
- [17] 10:00–10:20 Shen Li (tentative) (Purple Mountain Observatory)
A Multi-Beam 2SB Receiver for Millimeter-Wave Radio Astronomy

10:20–10:30 Break

10:30–11:45 Poster Sessions

12:00–18:00 Excursion

18:00–20:00 Banquet

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9:00–10:00 New telescopes and related technology

- [18] 9:00–9:20 Tomoo Nagahama (STEL Nagoya University)
Millimeter Wave Band Observations of Middle Atmosphere

- [19] 9:20–9:40 Hiroyuki Maezawa (STEL/NUSO Nagoya University)
Milli/Submillimeter Wave Band Observations of Planetary Atmosphere,
Development of THz Band HEB mixer
- [20] 9:40–10:00 Masumichi Seta (The University of Tsukuba)
Radio Astronomy at Dome Fuji in Antarctica
- [21] 10:00–10:20 Hiroshi Matsuo (National Astronomical Observatory of Japan)
A Study on Antarctica Terahertz Interferometer

10:20–10:30 Break

10:30–12:10 LO and optics

- [22] 10:30–10:50 Yue-Fang Kuo
(Academia Sinica Institute of Astronomy and Astrophysics)
Phase-locked Broadband VCO Module for Millimeter-wave
Astronomical Local Oscillator Sources
- [23] 10:50–11:10 Yun-Chih Chou
(Academia Sinica Institute of Astronomy and Astrophysics)
A New 660 GHz Local Oscillator Subsystem for Sub-
Millimeter Array
- [24] 11:10–11:30 Satoshi Ochiai
(National Institute of Information and Communications Technology)
The Gunn Oscillator Failure and a Premature Termination of SMILES
- [25] 11:30–11:50 T. Nitta (National Astronomical Observatory of Japan)
Development of Silicon Lens Array For Submillimeter Camera
and Design of Broadband Antireflective Structure

11:50–13:00 Lunch

13:00–14:40 ALMA and related technology

- [26] 13:00–13:20 Yutaro Sekimoto (National Astronomical Observatory of Japan)
Progress of ALMA Band 4 and Band 8 Pre-Production Cartridges
- [27] 13:20–13:40 Y. Fujii (National Astronomical Observatory of Japan)
Development of the 787–950 GHz Alma Band 10 Cartridge
- [28] 13:40–14:00 Alvaro Gonzalez (National Astronomical Observatory of Japan)
Beam Performance Characterization of ALMA Band 10 Cartridge
- [29] 14:00–14:20 Fong-Chi Hsu
(Academia Sinica, Institute of Astronomy and Astrophysics)
ALMA band-10 mixer development in ASIAA

[30] 14:20–14:40 C.-C. Chiong

(Academia Sinica, Institute of Astronomy and Astrophysics)

Designs and Measurements of Cryogenic MMIC LNA for ALMA Band-1

14:40–14:55 Discussion

14:55–15:00 Closing remarks