

# **TWSTFT Activities 2012 in NMIJ, AIST**

***National Metrology Institute of Japan  
(NMIJ)***

***Tomonari SUZUYAMA***

# 19th Meeting of the CCTF WG on TWSTFT



**NMIJ (Tsukuba, Japan)  
12-13 September, 2011**

**13 Institutes  
27 participants**

**Thank you very much!**



# Members of our section (until March 2012)

## Time and Frequency Division

F. HONG, Head of Time and Frequency Division

K. SETA, Deputy Director of NMIJ

S. OHSHIMA, Deputy Director of NMIJ



## Frequency Measurement Systems Section

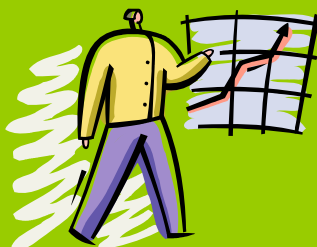
M. AMEMIYA

Chief, Frequency Measurement Systems Section



M. IMAE

Senior Research Scientist



K. WATABE

Senior Research Scientist



T. SUZUYAMA

Research Scientist



Y. FUJII

Technical Staff



A. OKUDA

Technical Staff



D. MIYAMOTO

Technical Staff



T. SAKURAI

Technical Staff



S. Shashika  
Student



A. NISHIDA  
Student

**Time Standards Section**

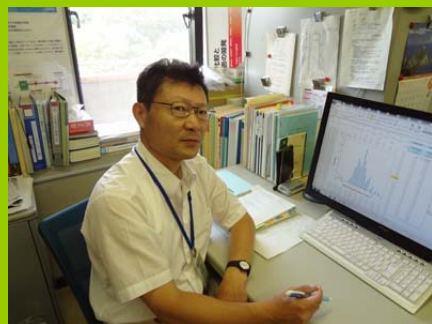
**Wavelength Standards Section**

# Members of our section **(from April 2012)**

**Time and Frequency Division**  
**F. HONG, Head of Time and Frequency Division**

**S. OHSIMA, Deputy Director of NMIJ**

## Frequency Measurement Systems Section



**M. AMEMIYA**  
 Chief, Frequency Measurement Systems Section



**A. OKUDA**  
 Technical Staff



**K. WATABE**  
 Senior Research Scientist



**T. SUZUYAMA**  
 Research Scientist



**M. WADA (Fresh Recruit!)**  
 Research Scientist

**Time Standards Section**

**Wavelength Standards Section**

# Time keeping at NMIJ

- 3 Cs clocks are reported to BIPM.
- Three Hydrogen Masers, RH401A and SD1T01A are made by Anritsu, another one is CH1-75A made by Kvarztz. (Another RH401A was halt. VCH-1003M made by VREMYA will be installed until February 2013.)
- The source oscillator for the AOG is one of the Hydrogen Masers.



UTC(NMIJ) Measurement Systems

# Earth station configuration



# ASIA link station (1.8 m, 10 W)



This frontend part is installed the temperature controlled system.

# Europe link station ( 2.4 m, 10 W)



The direction was changed toward AM-2,  
but new RX BPF, Radio license are needed.



# Up & Down Conv. (AM-2)



TX: 14 GHz, RX: 11GHz  
Assembled by [Frequency Corporation Ltd.](#)  
(Imae-san's venture company)

- NMIJ will join AM-2 link.

Thank you for your attention.