

*3rd Philippines - Japan Terahertz
Research Workshop 2023
(PJTW 2023)*

*Kobe University, Kobe, Japan, University of the Philippines Diliman, Philippines
University of Fukui, Fukui, Japan, University of the Philippines Los Baños, Philippines
Tokushima University, Tokushima, Japan, De La Salle University, Philippines*

**The Third Philippines – Japan
Terahertz Research Workshop
(July 16 – 17, 2023, University of the Philippines)**

Organized by

Research Center for Development of Far-Infrared Region, University of Fukui (FIR UF)

Molecular Photoscience Research Center, Kobe University (MPC KU)

Institute of Post-LED Photonics, Tokushima University (pLED TU)

National Institute of Philippines, University of the Philippines Diliman (NIP UPD)

College of Science, De La Salle University (DLSU)

Institute of Mathematical Sciences and Physics, University of the Philippines Los Banos (UPLB)



TOKUSHIMA UNIVERSITY



**UNIVERSITY OF
FUKUI**



DAY 1 : July 16, 2023 Sunday (iCSI Auditorium of NIP - UPD)

Time	Title	Speaker	Affiliation
8:00-8:30 (30)	Registration		
8:30-8:40 (10)	Welcome Remarks	Wilson Garcia (Director, National Institute of Physics)	University of the Philippines Diliman
8:40-8:50 (10)	Opening Remarks	Masahiko Tani (Co-Chair, PJTW 2023)	FIR, University of Fukui
8:50-9:15 (25)	Inv1: Challenges towards nano + THz spectroscopy (Invited)	Norihiko Hayazawa	RIKEN Saitama
9:15-9:40 (25)	Inv2: High-Power Terahertz Vortex Beam Generation Using a Gyrotron (Invited)	Masafumi Fukunari	FIR, University of Fukui
9:40-10:05 (25)	Inv3: Development of a high-frequency magnetic resonance apparatus in cryogenic region (Invited)	Yuya Ishikawa	FIR, University of Fukui
10:05-10:30 (25)	Inv4: Multi-layered, thin-film metamaterial for advanced tera-photonics (Invited, Online)	Hiroaki Minamide	RIKEN Sendai
10:30-10:45 (15)	Health Break		
10:45-11:05 (20)	Con1: Increased terahertz intensity from a spintronic terahertz emitter fabricated with a plasmonic metal line array (Contributed)	Hannah R. Bardolaza	University of the Philippines Diliman
11:05-11:25 (20)	Con2: Investigation of photocarrier dynamics in InAs/GaAs self-assembled quantum dots via optical pump-terahertz probe spectroscopy (Contributed)	Vince Paul Juguilon	University of the Philippines Diliman
11:25-13:00 (35)	Lunch		
13:00-13:25 (25)	Tut1: Terahertz Emission from Spintronic Nano-Structures (Tutorial)	Masahiko Tani	FIR, University of Fukui
13:25-13:50 (25)	Tut2: Terahertz Time-Domain Spectroscopy, Principles of Operation (Tutorial)	Arvin Lester C. Jusi	University of the Philippines Los Baños
13:50-14:15 (25)	Tut3: THz Fingerprinting and Classification of Substances using Data Science Techniques (Tutorial)	Alvin Karlo G. Tapia	University of the Philippines Los Baños
14:15-14:35 (20)	Health Break		
14:35-17:00 (145)	Poster Sessions		
17:00-18:00 (60)	Laboratory Tour		
18:00-19:30 (90)	Welcome Dinner		

DAY 2 : July 17, 2023 Monday ((iCSI Auditorium of NIP - UPD)

Time	Title	Speaker	Affiliation
8:00-8:30 (30)	Registration		
8:30-8:40 (10)	Overview of Day 2 and Announcements		
8:40-9:05 (25)	Inv5: Generation of terahertz wave by photo mixing of micro soliton comb modes and its application to terahertz wireless communication (Invited)	Yu Tokizane	Tokushima University
9:05-9:30 (25)	Inv6: Accelerating Spintronic Terahertz Emitters' Discovery by Ab-initio Calculations and AI (Invited)	Tien Quang Nguyen	Shinshu University
9:30-9:55 (25)	Inv7: First-principles based design of spintronic THz emitters without precious metals (Invited)	Clare Escaño	FIR University of Fukui
9:55-10:10 (15)	Health Break		
10:10-10:30 (20)	Con4: Terahertz Wave Generation Performances of Diabolo Antennas with Different Pt Thicknesses at the Flares (Contributed)	Miezel Talara	FIR University of Fukui
10:30-10:50 (20)	Con5: As-interstitial Defect for Sub-band Gap Excitation in Low-temperature GaAs from First-principles Calculations (Contributed)	Melanie David	De La Salle University
10:50-11:05 (15)	Asian Core-to-Core	Keisuke Tominaga	Kobe University
11:05-11:30 (25)	Tut4: THz Molecular Science in Condensed Phases (Tutorial)	Keisuke Tominaga	Kobe University
11:30-11:55 (25)	Tut5: Simulating the terahertz emission from photoconductive antenna via an equivalent circuit model (Tutorial)	Elmer Estacio and Nicole Dela Rosa	University of the Philippines Diliman
11:55-12:00 (5)	Closing Remarks	Elmer Estacio (General Chair, PJTW 2023)	University of the Philippines Diliman
12:00-13:10 (70)	Lunch		
13:10-14:30 (80)	Business Meeting		