

Feb 13. Wednesday

17:30~20:00 Reception & Registration (at Maronie Hall, 2nd floor, Hoam Building Lobby)

Feb 14. Thursday (Sangsan bldg.)

08:00~09:45 **Registration** & Breakfast (coffee & donuts at Sangsan bldg.)

09:45~10:00 Opening Ceremony : Gun-Sik Park, Workshop Chair, Center for THz-Bio Application Systems, SNU, Korea

Session 1

10:00~10:40 Xi-Cheng Zhang (Univ. of Rochester, USA): THz wave air photonics: challenge and opportunity

10:40~11:20 Koichiro Tanaka (Kyoto Univ., Japan): Terahertz microscope and its application

11:20~12:00 Andrea Markelz (Buffalo, USA): THz anisotropy in protein crystals: intramolecular motions

12:00~13:30 Lunch(at Duremidam)

Session 2

13:30~14:10 Keisuke Tominaga (Kobe Univ., Japan): Low-frequency dynamics of hydrogen-bonded complex in solution

14:10~14:50 Alexander Shkurinov (Lomonosov Moscow State Univ., Russia): Terahertz spectroscopic insight into the structure-function relation in protein molecules

14:50~15:10 Woong-Yang Park (Samsung Genome Institute, Korea): In vivo biological effects of fs-THz radiation

15:10~15:30 Pilhan Kim (KAIST, Korea): In vivo cellular analysis of THz-bio interaction by intravital microscopy

15:30~15:45 Coffee Break

Session 3

15:45~16:25 Culin Zhang (Capital Normal University, China): Biological Systems with Terahertz Radiation: Spectroscopy and Imaging

16:25~16:45 Joon Koo Han (SNU, Korea): THz imaging in medical field: current status and challenge

16:45~17:05 Hyyong Suk (GIST, Korea): THz generation by intense laser-plasma interactions

17:05~18:35 **Poster Session** (with pizza at Sangsan bldg.)

18:35~20:35 Banquet (at La-cucina for invited only)

Feb 15. Friday (Sangsan bldg.)

08:00~09:00 Breakfast (coffee & donuts at Sangsan bldg.)

Session 4

09:00~09:40 Martina Havenith (Ruhr-University Bochum, Germany): Fast solvation dynamics detected by THz spectroscopy

09:40~10:20 Vinh Quang Nguyen (Virginia Tech, USA): New insights into the picosecond dynamics of water and solvated proteins

10:20~10:40 Wonho Jhe (SNU, Korea): Time-resolved study of nucleation process of water bridge

10:40~10:55 Coffee Break

Session 5

10:55~11:35 R Holland Cheng (Department of Molecular and Cell Biology, UC Davis, USA): Phases of water in soft materials imaging

11:35~12:15 Masayoshi Tonouchi (Osaka Univ., Japan): Scanning Laser THz imaging system and its application

12:15~13:45 Lunch (at Duremidam), Group picture

Session 6

13:45~14:25 Kodo Kawase (Nagoya Univ. Japan): Novel high power THz sources and applications

14:25~14:45 DaiSik Kim (SNU, Korea): Giant terahertz cross sectional enhancement of molecules inside nano slot antennas

14:45~15:05 Yaxin Zhang (UESTC, China): High-Harmonic Terahertz Radiation from prebunched Electron Beam within two-section periodical waveguide structures

15:05~15:25 Kyung Hyun Park (ETRI, Korea): Simple and Cost-effective Terahertz Module Based on Photonic Devices

15:25~15:40 Coffee Break

Session 7

15:40~16:20 Masahiko Tani (Fukui Univ, Japan): Cherenkov phase-matched EO sampling for efficient THz wave detection

16:20~16:40 Young Uk Jeong (KAERI, Korea): Status of KAERI High-power THz Activities based on RF Accelerators

16:40~17:00 Chul Sik Kee (GIST, Korea): Characteristics of terahertz pulses from antireflective GaAs surfaces with nano-pillars

17:00~17:20 Haewook Han (POSTECH, Korea): Quantitative Spectroscopic THz Near-Field Microscopes

17:20~17:40 Ogan Gurel (Samsung Advanced Institute of Technology, Korea): Protein Electrodynamics & Terahertz Radiation: The Future of Medicine?

17:40~18:00 **Workshop Summary by IAC members** (S. Liu, K. Sakai, A. Markelz, X.-C. Zhang) **Concluding Remark** (G.P. Gallerano)

18:00~ Dinner & Show