International Workshop on

“Nonlinear wave-mixing for laser technology”

Organized by Venture Business Laboratory (VBL), Chiba University,
and Research group on Lightwave synthesis (Optical Society of Japan)

Date: 17-18, July 2008
Location: Venture Business Laboratory (VBL), Chiba University, Japan
Access and URL: http://www.vbl.chiba-u.jp/index_jp.htm
Registration: Not necessary

Program

17th July (Thursday): Laser Technology Session

12:50-13:00 Opening Remark (T. Omatsu, Chiba University, Japan)

13:00-13:30 B. Orr, Y. He (Macquarie University, Australia)

Self-adaptive narrowband wavelength control of coherent light sources, using an intracavity photorefractive reflector for phase-conjugate optical feedback

13:30-14:00 M.J. Damzen (Imperial College, United Kingdom)

Self-organising lasers and sensors based on dynamic gain gratings

14:00-14:30 T. Omatsu (Chiba University, Japan)

High-intense pico-second phase conjugate laser systems

14:30-15:30 Poster session

C. Ndiaye, T. Hara, H. Ito (Tohoku University, Japan)

Characterization of the second harmonic of a frequency-shifted feedback laser

T. Bach, L. Mutter, B. Ruiz, M. Jazbinsek, P. Guenter ((ETH, Switzerland)

DAST crystals for photonic applications

Y. Shimada, K. Muro, S. Kitaki, M. Muro (Chiba University, Optoenergy Co,Ltd, Japan.)

Development of High-Power Widely-Tunable External Cavity Laser Diode

T. Shiina, Y. Tsuge, T. Honda (Chiba Univesrity, Japan)

Peculiar propagation of annular beam in random media

H. Kuze[1], K. Shinomiya[1], M. Yabuki[1], T. Shiina[1], M. Sasaki[2] (Chiba University[1], University of Tokyo[2], Japan)

Application of a high-resolution, wide-field-of view telescope to monitoring atmospheric aerosols and clouds

Y. Morimoto, N. Shiba, T. Omatsu (Chiba University, Japan)

Sub-5ps pulse generation from a diode-pumped Nd:$Gd_xY_{1-x}VO_4$ phase conjugate laser

J. Hamazaki[1], R. Morita[1], T. Omatsu[2] (Hokkaido University[1], Chiba University[2], Japan)

High power radially-polarized laser based on a diode-pumped vanadate bounce amplifier with a photonic crystal mirror

H. Watanabe[1], T. Omatsu[2], (Kyusyu University[1], Chiba University[2], Japan)

Ultraviolet laser using a pico-second waveguide dye laser including a random scattering active media

K. Harada, D. Sakai, T. Tsukahara, D. Miho, S. Kamemaru (Kitami Institute of Technology, Japan)

Recording technique of functional hologram using corona charging

O. Matoba, T. Nakamura, K. Nitta (Kobe University, Japan)

Coherent amplification of three-dimensional object in wavefornt reconstruction

R. Someya, Y. Kato, J. Sato, S. Yamaguchi, T. Yasuda, K. Nanri, T. Fujioka (Tokai University, Japan)

Novel mid-infrared laser absorption spectrometer with a thin disk optical multi-pass cell

J. Kato, A. Ono, S. Kawata (Riken, Japan)

Near-field Imaging through Metallic Nanostrucuture

15:30-16:00 K. Kuroda (University of Tokyo, Japan)

Mid-infrared generation in DAST

16:00-16:30 M. Jazbinsek (ETH, Switzerland)

Fast photorefraction in the infrared with ferroelectric $Sn_2P_2S_6$ (SPS)

16:30-17:00 T. Komatsu (Nagaoka University of Technology, Japan)

Laser patterning of nonlinear optical crystallines in glass

17:00-17:30 M. Yoshimura, Y. Mori, Y. Kaneda, Y. Kitaoka, and T. Sasaki (Osaka University, Japan)

Advanced DUV sources by using CsLiB6O10 crystal

18:00- Party

18th July (Friday): Bio-imaging Session

10:00-12:00 Laboratory tour

12:00-13:00 Lunch

13:00-13:40 H. Yokoyama (Tohoku University)
Nonlinear-optic bio-imaging with picosecond optical pulses from semiconductor lasers

13:40-14:20 T. Araki, S. Fukushima, T. Yasui and M. Hashimoto (Osaka University)
Visualization of collagen fibers by SHG-microscopy for regenerative medicine

14:20-15:00 H. Kano and H. Hamaguchi (The University of Tokyo)
Molecular Spectroscopic Imaging Using a White Laser Source

15:00-15:20 Coffee Break

15:20-16:00 M. Tamura (Hokkaido University)
Frontier of Optical Imaging -From Single Molecule to Human Body

16:00-16:40 K. Nitta and O. Matoba (Kobe University)
Optical coherence and diffusion tomographies

16:40-17:20 R. Morita (Hokkaido University)
Observation of photo-induced surface phenomena of a single molecule on metals by scanning tunneling microscopy

17:20-17:30 Closing Remark (T. Omatsu, Chiba University)

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