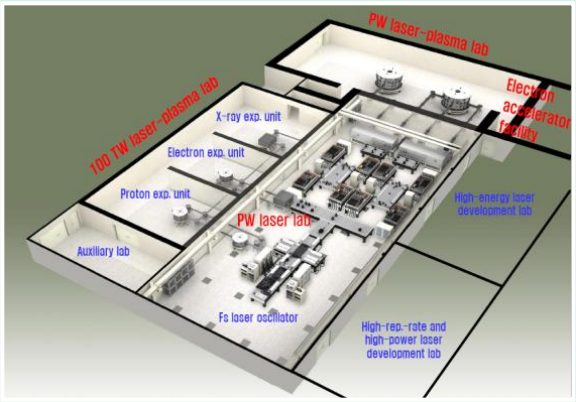
Bird's-eye view of the Ultrashort Quantum Beam Facility



Layout of the Ultrashort Quantum Beam Facility

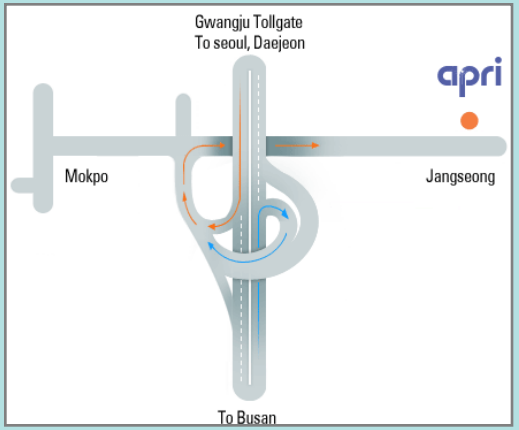
This workshop was supported by the Ministry of Knowledge and Economy of Korea through the Ultrashort Quantum Beam Facility Program.

Registration

- Fee: free
- Location: International Collaboration Builidng, UQBF

Workshop Venue

- Address: International Collaboration Building,
  Ultrashort Quantum Beam Facility,
  Advanced Photonics Research Institute,
  GIST, 1 Oryong-dong, Buk-Gu,
  Gwangju 500-712, Republic of Korea
- Phone: +82-62-970-4703
- Fax: +82-62-970-4705
- Web-site: http://apri.gist.ac.kr
- Transportation
  - By car: 3 minutes from Gwangsan IC
  - By taxi from Gwangju Bus Terminal: 30 minutes
  - By taxi from Gwangju Airport: 30 minutes
  - By taxi from Gwangju Station: 25 minutes
- Map



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The 6th User Workshop of Ultrashort Quantum Beam Facility

PW laser lab at the Ultrashort Quantum Beam Facility

May 21, 2009
International Collaboration Building, APRI, GIST
Gwangju, Korea

Organized by

Center for Femto-Atto Science and Technology,
Advanced Photonics Research Institute,
Gwangju Institute of Science and Technology (Korea)

GIST apri ADVANCED PHOTONICS RESEARCH INSTITUTE

http://apri.gist.ac.kr

Welcoming Message

We are very pleased to have the Sixth User Workshop of Ultrashort Quantum Beam Facility (UQBF). APRI has been developing the UQBF with PW power which is a national user facility. Now, a 100-TW ultrashort and ultraintense laser system was successfully developed, and several international research collaborations as well as much domestic collaboration utilizing this extremely high power laser facility are already in progress.

As a result, our 100-TW facility has produced scientifically important outputs such as high-energy electron acceleration, proton beam generation, and X-ray laser demonstration. Furthermore, with the completion of constructing the building of UQBF, the installation of the PW-class laser system and the target chambers has just begun. In this world-class laser facility, more domestic and international users can perform experiments and produce many outstanding scientific outputs.

In this workshop, many users will report their recent results including ultrafast dynamics in quantum structures, laser machining, X-ray imaging, applications of energetic ion beam generation, multi-color light sources based on nonlinear materials etc., and will have fruitful discussion.

We are looking forward to seeing you in this exciting workshop.

Project leader, Prof. Jongmin Lee
Center for Femto-Atto Science and Technology
Advanced Photonics Research Institute, GIST

Program

May 21 (Thursday)		
13:00 -13:20	Registration	
13:20 -13:30	Welcoming address Research award ceremony	Prof. Jongmin Lee
13:30 -14:30	Session A: High-field laser science	Chair : Dr. Hyung Taek Kim
13:30	(A-1) Diffraction imaging in reflection geometry	Prof. Do Young Noh (GIST)
13:45	(A-2) Tunable THz radiation source via short pulse laser-plasma interaction	Dr. Ju Tae Seo (Chung-Ang Univ.)
14:00	(A-3) Proton radiography using ultraintense laser considering proton lateral straggling	Mr. Chnag Il Choi (Hanyang Univ.)
14:15	(A-4) Study for the development for CEP-stabilized mJ few-cycle laser	Prof. Dong Eon Kim (POSTECH)
14:30 -14:45	Break and group photo	
14:45 -16:15	Session B: Nonlinear optics, laser processing, and microscopy	Chair : Dr. Ik Bu Sohn
14:45	(B-1) Phase control approach for a Ag near-field superlens	Prof. Kyungsik Kim (Yonsei Univ.)
15:00	(B-2) Quality assessment of QPM devices by diffraction measurement	Dr. Hwang-Hong Lim (Pusan Univ.)
15:15	(B-3) Carrier relaxation measurements in graphene layers using femtosecond OPO	Prof. Ki-Ju Yee (Chungnam Univ.)
15:30	(B-4) Fs-laser bonding of optical materials and energy transfer in irradiated glass	Prof. Ki-Soo Lim (Chungbuk Univ.)
15:45	(B-5) Ablation characteristics during femtosecond laser micromachining of ceramics	Mr. Sunghoon Kim (GIST)
16:00	(B-6) Ultrahigh resolution full-field optical coherence tomography	Prof. Byeong Ha Lee (GIST)
16:15 -16:30	Break	
16:30 -18:00	Session C: Laser spectroscopy	Chair : Dr. Myung Gyu Oh
16:30	(C-1) Third harmonic generation in metal/glass interfaces using high-resolution confocal microscopy	Prof. Seung-Han Park (Yonsei Univ.)
16:45	(C-2) Nonlocal dispersion cancellation using entangled photons	Prof. Yoon-Ho Kim (POSTECH)
17:00	(C-3) Investigation on population transfer route of heteronuclear KRb molecule through perturbation windows	Prof. Jin-Tae Kim (Chosun Univ.)
17:15	(C-4) Estimation on the energy level of InAs/InAlGaAs quantum dots by femto-second laser spectroscopy	Prof. Jin Soo Kim (Chonbuk Univ.)
17:30	(C-5) Scanning photocurrent imaging on nanoscale devices using femtosecond lasers	Prof. Yeong Hwan Ahn (Ajou Univ.)
17:45	(C-6) Effect of optical pumping on transmission spectrum in rubidium	Prof. Heung-Ryoul Noh (Chonnam Univ.)
18:00	Concluding remarks	Prof. Jongmin Lee
18:15 - 20:00	User meeting	