

8th International Conference on Physics of Light-Matter Coupling in Nanostructures (PLMCN8)

Conference timetable

April 7 (MON)	10:00-10:15	Opening
	10:15-12:15	Plenary session
	12:15-13:30	<i>Lunch</i>
	13:30-15:30	Excitons & Polaritons
	15:30-16:00	<i>Coffee break</i>
	16:00-18:00	Optical Properties of Quantum Dots 1
April 8 (TUE)	9:30-12:00	Photonic Nanocavities
	12:00-13:30	<i>Lunch</i>
	13:30-15:30	Optical Properties of Quantum Dots 2
	15:30-16:00	<i>Coffee break</i>
	16:00-18:15	Electron-Photon Interaction
April 9 (WED)	9:45-12:00	Nanostructure Optical Devices & Ultrafast Phenomena
	12:00-13:30	<i>Lunch</i>
	13:30-16:00	Nitride Semiconductors
	16:00-17:40	Poster Session
	18:00-	<i>Banquet</i>
April 10 (THU)	9:30-12:00	Non-Classical Light Sources
	12:00-13:30	<i>Lunch</i>
	13:30-15:30	Excitons & Plasmons
	15:30-16:00	<i>Coffee break</i>
	16:00-18:00	Quantum Information & Coherent Phenomena
	18:00-18:10	Closing
April 11 (FRI)		<i>Excursion</i>

Program

7th April (Monday)

Opening (10:00-10:15)

Welcome Address

Y. Arakawa (*Univ. of Tokyo/Japan*)

Plenary Session (10:15-12:15)

MoA-1 (10:15) (Plenary) Light - Matter Coupling in High Q Quantum Dot Micropillars - Progress and Challenges

S. Reitzenstein, C. Hofmann, M. Strauss, S. Höfling, M. Kamp and A. Forchel (*Univ. Würzburg/ Germany*)

MoA-2 (10:55) (Plenary) Dynamical condensation of exciton-polaritons -Application to quantum optical simulators-

Y. Yamamoto (*Stanford Univ./ USA, National Inst. Informatics/ Japan*)

MoA-3 (11:35) (Plenary) Bose-Einstein Condensation of Exciton-polaritons at Room Temperature

A.V. Kavokin¹, S. Christopoulos¹, G.B.H. von Hogersthal¹, A.J.D. Grundy¹, G. Malpuech², D. Solnyshkov², G. Christmann³, R. Butte³, E. Feltin³, J.-F. Carlin³, N. Grandjean³ and J.J. Baumberg¹ (¹*Univ. of Southampton/ UK*, ²*LASMEA, UMR CNRS/Blaise Pascal Univ./ France*, ³*Inst. of Quantum Electronics and Photonics/ Switzerland*)

Excitons & Polaritons (13:30 - 15:30)

MoB-1 (13:30) (Invited) Vortices in Polariton Condensates

Y. Rubo (*Univ. of Southampton/UK*)

MoB-2 (14:00) Two-Component Model of Polariton Condensation Dynamics in Semiconductor Microcavities

P.J. Membry, Y. Rubo and A. Kavokin (*Univ. of Southampton/UK*)

MoB-3 (14:15) Glassy and Superfluid Phases of Cavity Polaritons

D. Solnyshkov¹, G. Pavlovic¹, M. Glazov², I. Shelykh¹ and G. Malpuech¹ (¹*Univ. Blaise Pascal/France*, ²*Ioffe Inst./Russia*)

MoB-4 (14:30) Spin Effects in Quantum Interference of Cavity Polaritons

M. Glazov and L. Golub (*Ioffe Inst./Russia*)

MoB-5 (14:45) Kinetics of Stimulated Polariton-Polariton Scattering in Planar Microcavities

V.D. Kulakovskii¹, S.S. Gavrilov¹, A.A. Demenev¹, N.A. Gippius^{2,3} and S.G. Tikhodeev² (¹*Solid State Physics Inst. RAS/Russia*, ²*A. M. Prokhorov General Physics Inst. RAS/Russia*, ³*Univ. Blaise Pascal/France*)

MoB-6 (15:00) Optical Circuits Based on Exciton-Polaritons in Semiconductor Microcavities

T. Liew¹, A. Kavokin¹ and I. Shelykh² (¹*Univ. of Southampton/UK*, ²*Univ. of Brasilia/Brazil*)

MoB-7 (15:15) Exciton Polaritons in One-Dimensional Photonic Quasicrystals

A. Poddubny¹, L. Pilozzi² and E. Ivchenko¹ (¹*Ioffe Physico-Technical Inst. of the RAS/Russia*, ²*Istituto dei Sistemi Complessi CNR/Italy*)

Optical Properties of Quantum Dots 1 (16:00 - 18:00)**MoC-1 (16:00) (Invited) Coherently Controlled Light Emission of Quantum Dots in Cavities**

C. Shih (*Univ of Texas at Austin/USA*)

MoC-2 (16:30) Large Vacuum Rabi Splitting in Single Self-assembled Quantum Dot-nanocavity System

M. Nomura, Y. Ota, N. Kumagai, S. Iwamoto and Y. Arakawa (*Univ. of Tokyo/Japan*)

MoC-3 (16:45) Phase and Doppler Effects for a χ^3 Process of an Optical Parametric Oscillator

F. Bello, D.M. Whittaker and D.N. Krizhanovskii (*Univ. of Sheffield/UK*)

MoC-4 (17:00) Strong-coupling of Quantum Dots in Microcavities

F.P. Laussy, E. del Valle and C. Tejedor (*Univ. Autonoma de Madrid/Spain*)

MoC-5 (17:15) Confined Acoustic Phonons in a Single CdSe-CdS-ZnS Nanocrystal

T. Kipp, G. Chilla, M. Nikolic, A. Frömsdorf, T. Menke, A. Kornowski, D. Heitmann, S. Förster and H. Weller (*Univ. of Hamburg/Germany*)

MoC-6 (17:30) Optical Near-field Energy Transfer between CdSe Quantum Dots for Unidirectional Signal Transmitter

W. Nomura¹, T. Yatsui¹, T. Kawazoe¹, M. Naruse², N. Tate¹ and M. Ohtsu¹ (¹*Univ. of Tokyo*, ²*NICT/ Japan*)

MoC-7 (17:45) Non Blinking Colloidal Quantum Dots

P. SPINICELLI¹, B. Mahler², S. Buil³, X. Quelin³, J.-P. Hermier^{1,3} and B. Dubertret² (¹*Lab Kastler Brossel*, ²*Lab Photons Et Matière, ESPCI*, ³*Univ. of Versailles Saint Quentin/France*)

8th April (Tuesday)**Photonic Nanocavities (9:30 - 12:00)****TuA-1 (9:30) (Invited) High-Q Photonic Crystal Nanocavity**

S. Noda (*Kyoto Univ./Japan*)

TuA-2 (10:00) (Invited) Photon Collection from Photonic Crystal Nano-Resonator

Y.-H. Lee, M.-K. Kim, M.-K. Seo, I.-K. Hwang and S.-H. Kim (*KAIST/Korea*)

TuA-3 (10:30) Control of Spontaneous Emission of Crystalline Silicon by Utilizing Photonic Crystal Nanocavities

S. Iwamoto¹, S. Nakayama¹, A. Gomyo² and Y. Arakawa¹ (¹*Univ. of Tokyo*, ²*NEC Corp./Japan*)

TuA-4 (10:45) Light-emission Properties in Silicon Photonic Crystals and Nanocavities

M. Fujita, Y. Tanaka and S. Noda (*Kyoto Univ./Japan*)

TuA-5 (11:00) The Photoluminescent Properties of Colloidal PbSe Quantum Dots Coupled to Silicon Planar Photonic Crystal Cavities

H. Qiao¹, K. Abel², M. Tan², J. Young¹ and F. Veggel² (¹*Univ. of British Columbia*, ²*Univ. of Victoria/Canada*)

TuA-6 (11:15) Optimisation of L3 Photonic Cavities for Er in Silicon

B. Balmforth¹, F. Brossard², S. Schirmer¹, J. McCallum³, D. Jamieson³, R. Phillips¹ and D. Williams² (¹*Univ. of Cambridge*, *Hitachi Cambridge Labo./UK*, ³*Univ. of Melbourne/Australia*)

TuA-7 (11:30) Confined Optical Modes Microtube Ring Resonators

H. Rehberg, Ch. Stelrow, C.M. Schultz, H. Welsch, Ch. Heyn, D. Heitmann and T. Kipp (*Univ. of Hamburg/Germany*)

TuA-8 (11:45) Strong Whispering Gallery modes in Sub-micron Spheres

R. Cole¹, J. Baumberg¹, S. Mahajan² and P. Bartlett² (¹*Univ. of Cambridge*, ²*Univ. of Southampton/UK*)

Optical Properties of Quantum Dots 2 (13:30 - 15:30)**TuB-1 (13:30) (Invited) Ultrafast Qubit Control in Quantum Dots**

A.J. Ramsay, S.J. Boyle, R.S. Kolodka, M. Hopkinson, A.M. Fox and M.S. Skolnick (*Univ. of Sheffield/UK*)

TuB-2 (14:00) Charge State Tuning of Individual InAs/GaAs Quantum Dots by an External Magnetic Field

L.A. Larsson¹, E.S. Moskalenko², M. Larsson¹ and P.O. Holtz¹ (¹Linköping Univ., Sweden, ²Offe Phys.-Tech. Inst./Russia)

TuB-3 (14:15) Nuclear Field-Mediated Measurement of Effective g Factors of Quantum Dots

S. Adachi, R. Kaji, K. Yamada, S. Muto, H. Sasakura, H. Kumano and I. Suemuna (Hokkaido Univ./Japan)

TuB-4 (14:30) All Optical Measurement of Rashba Coefficient in Quantum Wells

P.S. Eldridge¹, W.J.H. Leyland², P.G. Lagoudakis¹, O.Z. Karimov¹, M. Henini³, D. Taylor³, R.T. Phillips² and R.T. Harley¹ (¹Univ. of Southampton, ²Univ. of Cambridge, ³Univ. Nottingham/UK)

TuB-5 (14:45) Magneto-optical Spectroscopy of Neutral, Positively-charged, and Negatively-charged Excitons in Single InAs/GaAs Quantum Dots

A. Kiriha^{1,2}, S. Kono^{1,2}, T. Nakaoka², N. Kumagai², K. Watanabe², J. Fujikata¹, S. Ohkouchi^{1,2}, S. Yoro^{1,2} and Y. Arakawa² (¹NEC Corp., ²Univ. of Tokyo/Japan)

TuB-6 (15:00) Temperature and Magnetic Field Dependence of Photocurrent Peaks at Wavelength of 1.3 μm

T. Koda¹, H. Takagi¹, T. Nakaoka¹, N. Kumagai¹, K. Watanabe¹, S. Tarucha^{1,2} and Y. Arakawa¹ (¹Univ. of Tokyo, ²ICORP-JST/ Japan)

TuB-7 (15:15) Tuning Exchange Interaction in Colloidal Nanocrystals

S. Rohm¹, A. Susha², A. Rogach², D. Talapin³, H. Weller⁴, R.T. Harley¹ and P.G. Lagoudakis¹ (¹Univ. of Southampton/UK, ²Ludwig-Maximilians-Univ. Munich/ Germany, ³Univ. of Chicago/ USA, ⁴Univ. Hamburg/ Germany)

Electron-Photon Interaction (16:00 - 18:15)

TuC-1 (16:00) (Invited) Coherent Transfer of Light Polarization to Electron Spins in a Semiconductor Quantum Well

H. Kosaka (Tohoku Univ./ Japan)

TuC-2 (16:30) Gate-Controlled Electron Tunneling, Photocurrent and Photoemission in Self-assembled Quantum Dots

T. Nakaoka, K. Watanabe, N. Kumagai and Y. Arakawa (Univ. of Tokyo/ Japan)

TuC-3 (16:45) Electronic Multiple-Phonon Scattering in a Nanotransistor

K. Kral (Acad. Sci. of Czech Republic/ Czech Republic)

TuC-4 (17:00) Photocurrent Enhancement in Hybrid Nanocrystal/patterned Quantum Well Structure Utilizing Non-radiative Energy Transfer

S. Chanyawadee¹, R. Harley¹, M. Henini² and P. Lagoudakis¹ (¹Univ. of Southampton, ²Univ. of Nottingham/ UK)

TuC-5 (17:15) Density Dependent Particle Loss of Spin-forbidden Excitons in Cuprous Oxide Observed by Excitonic Lyman Spectroscopy

K. Yoshioka, T. Ideguchi and M. Kuwata-Gonokami (Univ. of Tokyo, SORST-CREST(JST)/ Japan)

TuC-6 (17:30) On Tunneling Times in Real and Complex Potentials

S. Kocinac and V. Milanovic (Univ. of Belgrade/ Serbia)

TuC-7 (17:45) Time-resolved Photoluminescence Properties of AlGaIn/AlN/GaN High Electron Mobility Transistor Structures Grown on 4" SiC Substrate

G. Pozina, C. Hemmingsson, U. Forsberg, A. Lundskog, A. Kakanakova-Georgieva, I. Ivanov, B. Monemar, L. Hultman and E. Janzén (Linköping Univ./ Sweden)

TuC-8 (18:00) Spin Superfluidity in Exciton-Polariton Liquids

A. Kavokin and L. Timothy (Univ. of Southampton/ UK)

9th April (Wednesday)

Nanostructure Optical Device & Ultrafast Phenomena (9:30 - 12:00)

WeA-1 (9:45) (Invited) Recent Advances in Quantum-Dot Lasers

M. Sugawara^{1,2} and Y. Arakawa³, (¹Fujitsu Laboratories Ltd, ²QD Laser, Inc., ³Univ. of Tokyo/ Japan)

WeA-2 (10:15) Near Room Temperature Polariton Electroluminescence in Strongly Coupled MC LED

P. Savvidis^{1,2}, S. Tsintzos¹, G. Konstantinidis², Z. Hatzopoulos¹ and N. Pelekanos^{1,2} (¹Univ. of Crete, ²FORTH/ Greece)

WeA-3 (10:30) Temporal Origin of THz Light Emission and the Phase of Bloch Oscillations in GaAs/AlAs Superlattices

T. Unuma^{1,2}, K. Hirakawa^{1,3}, Y. Ino¹ and M. Kuwata-Gonokami¹ (¹Univ. of Tokyo, ²Nagoya Univ., ³CREST, JST/ Japan)

WeA-4 (10:45) (Invited) Growth and optical properties of InAs/Sb:GaAs quantum dots grown by antimony-mediated metal organic chemical vapor deposition for lasers application

D. Guimard and Y. Arakawa (Univ. of Tokyo/ Japan)

WeA-5 (11:15) The Effect of an Electrostatic Lateral Potential on GaAs Microcavity Exciton-polaritons

N. Kim^{1,2}, G. Roumpos¹, C. Lai^{1,2}, S. Utsunomiya^{2,3}, N. Kumada³, T. Fujisawa³, A. Loeffler⁴, S. Hoefling⁴, A. Forchel⁴ and Y. Yamamoto^{1,2} (¹Stanford Univ./ USA, ²Univ. of Tokyo, ³NTT/ Japan, ⁴Univ. Wuerzburg/ Germany)

WeA-6 (11:30) (Invited) Ultrafast Hydrogen Migration in Molecules in Intense Laser Fields

K. Yamanouchi (*Univ. of Tokyo/ Japan*)

Nitride Semiconductors (13:30 - 16:00)

WeB-1 (13:30) (Invited) Polarized Emission from a Single GaN/AlN Quantum Dot : Experiment and Theory

B. Gil¹, T. Guillet¹, R. Bardoux¹, T. Bretagnon¹, P. Lefebvre¹, T. Taliercio¹ and F. Semond² (¹ *Univ. Montpellier 2*, ² *CRHEA – CNRS/ France*)

WeB-2 (14:00) Theoretical Study of Electronic and Optical Properties of Nitride Nanopillars

L. Prokopova, M. Povolotskyi and A. Di Carlo (*Univ. of Rome “Tor Vergata”/ Italy*)

WeB-3 (14:15) Microscopic Luminescence Characterization of InGaN/GaN Micro-disk LEDs on Silicon: 3D Stress Distribution and Optical Confinement

A. Franke¹, F. Bertram¹, J. Christen¹, A. Dadgar^{1,2}, A. Krost^{1,2}, X.K. Lin³, S.L. Teo³ and S. Tripathy³
(¹ *Otto-von-Guericke-Univ. Magdeburg*, ² *AZZURRO Semiconductor AG, Magdeburg/ Germany*, ³ *IMRE, Singapore/ Singapore*)

WeB-4 (14:30) Anisotropic Stimulated Emission and Gain Formation of Non c Plane InGaN Laser Diodes

K. Kojima¹, M. Funato¹, Y. Kawakami¹, S. Nagahama² and T. Mukai² (¹ *Kyoto Univ.*, ² *Nichia Corp./ Japan*)

WeB-5 (14:45) Ultralow Threshold Electrically-pumped Polariton Laser

A. Di Carlo¹, D. Solnyshkov², E. Petrolati¹ and G. Malpuech² (¹ *Univ. of Rome Tor Vergata/ Italy*, ² *Univ Blaise Pascal/France*)

WeB-6 (15:00) Control of the Linear Polarization of Excitonic Emission from Group-III-nitride Quantum Dots

M. Winkelnkemper, A. Hoffmann and D. Bimberg (*Technical Univ. of Berlin/ Germany*)

WeB-7 (15:15) Which Quasi-Particles in Wide Band Gap Bulk Microcavities?

S. Faure, T. Guillet, P. Lefebvre, T. Bretagnon, T. Taliercio and B. Gil (*Univ. Montpellier 2/ France*)

WeB-8 (15:30) Optimization of Electrical Injection Device for GaN Based VCSELs and Polariton Lasers

E. Petrolati and A. Di Carlo (*Univ. of Rome “Tor Vergata”/ Italy*)

WeB-9 (15:45) Temperature Dependence of the Recombination Dynamics of Free Excitons and Basal Plane Stacking Faults Emission in A-plane GaN ELO Structures

B. Bastek¹, F. Bertram¹, J. Christen¹, T. Wernicke², M. Weyers² and M. Kneissl³ (¹ *Univ. Magdeburg*, ² *Ferdinand-Braun-Inst. Berlin*, ³ *TU Berlin and FBH Berlin/ Germany*)

Poster Presentation (16:00 - 17:40)

WeP-1 Real-time Analysis of Optical Response of Cavity Bipolaritons

H. Oka¹ and H. Ishihara^{1,2} (¹ *Osaka Prefecture Univ.*, ² *CREST-JST/ Japan*)

WeP-2 Origin of Unexpected Light Emission in a Coupled System of a Photonic-crystal Nanocavity and a Quantum Dot

M. Yamaguchi, T. Asano and S. Noda (*Kyoto Univ./ Japan*)

WeP-3 Enhanced Emission and Absorption of Single Quantum Dot by Coupling to Two Different Photonic Crystal Nanocavity Modes

Y. Ota¹, M. Nomura¹, N. Kumagai¹, K. Watanabe¹, S. Ishida¹, S. Iwamoto¹, M. Shirane², S. Kono², S. Yorozu² and Y. Arakawa¹ (¹ *Univ. of Tokyo*, ² *NEC Corp./ Japan*)

WeP-4 Peculiarities of Band Gap Width Dependence upon Concentration of the Admixture Strips Randomly Included in Quasi-two-dimensional Photonic Structure

V. Rumyantsev, S. Fedorov and E. Shtaerman (*A.A. Galkin Donetsk Inst. for Physics and Engineering/ Ukraine*)

WeP-5 Observation of Giant Rabi Splitting in a Bulk CuCl Microcavity

G. Oohata¹, T. Nishioka², D. Kim², H. Ishihara^{1,3} and M. Nakayama² (¹ *Osaka Prefecture Univ.*, ² *Osaka City Univ.*, ³ *JST/ Japan*)

WeP-6 Creation of 9 dB Squeezing with Periodically-poled KTiOPO4

Y. Takeno^{1,2}, M. Yukawa^{1,2}, H. Yonezawa^{1,2} and A. Furusawa^{1,2} (¹ *Univ. of Tokyo*, ² *JST-CREST/ Japan*)

WeP-7 Photoinduced Kerr Rotation in Semiconductor Microcavity

Y. Mitsumori^{1,2}, N. Kato¹, H. Kosaka^{1,2}, K. Edamatsu^{1,2}, N. Yamamoto³ and K. Akahane³, ¹ *Tohoku Univ.*, ² *CREST* and ³ *NICT/ Japan*

WeP-8 Excitonic Rabi Oscillations in a Single Quantum Dot Observed by a Heterodyne Pump-probe Technique

Y. Miyahara¹, Y. Mitsumori^{1,2}, H. Kosaka^{1,2} and K. Edamatsu^{1,2} (¹ *Tohoku Univ.*, ² *CREST, Japan*)

WeP-9 Optical-phonon Mediated Efficient Spin-state Transfer between Electron-spin and Photon-polarization with a Single Quantum Dot without External Field

H. Kumano^{1,2}, S. Ekuni¹, H. Kobayashi¹, H. Sasakura¹, I. Suemune^{1,3}, S. Adachi³ and S. Muto³ (¹ *Hokkaido Univ.*, ² *CREST*, ³ *Hokkaido Univ./ Japan*)

WeP-10 Electrically Detected Magnetic Resonance of Phosphorus in Silicon

H. Morishita¹, H. Tanaka², K. Semba², V. Vlasenko³, K. Sawano⁴, Y. Shiraki⁴ and M.K. Itoh^{1,5} (¹Keio Univ., ²NTT/ Japan, ³A.F. Ioffe Physico-Tech. Inst./ Russia, ⁴Musashi Inst. Tech. and ⁵Univ. of Tokyo/ Japan)

WeP-11 Photoluminescence Excitation Measurement of Hexagonal GaN Quantum Dots by Multi-photon Absorption Process

T. Kawano, S. Kako, C. Kindel and Y. Arakawa (Univ. of Tokyo/ Japan)

WeP-12 Luminescence Enhancement of Electron-hole Droplets in Diamond by a Weak Pulse Injection

J. Omachi, N. Naka, K. Yoshioka and M. Kuwata-Gonokami (Univ. of Tokyo, CREST(JST)/ Japan)

WeP-13 Selective Generation of Cold Orthoexcitons in Cuprous Oxide Using Phase Modulated Femtosecond Pulses

T. Ideguchi, T. Sakamoto, K. Yoshioka and M. Kuwata-Gonokami (Univ. of Tokyo, CREST(JST)/ Japan)

WeP-14 Wavelength Tuning in an Individual Single-walled Carbon Nanotube with Uniaxial Strain

H. Maki¹, T. Sato¹ and K. Ishibashi² (¹Keio Univ., ²RIKEN/ Japan)

WeP-15 Nanophotonic Up-conversion Device Driven by an Optical Near-field Using ZnO Nanorod Quantum-well Structures

T. Yatsui¹, S. Sangu², K. Kobayashi³, M. Ohtsu^{1,4}, J. Yoo⁵, J.H. Chae⁵ and G.-C. Yi⁵ (¹Univ. Tokyo, ²Ricoh Co., Ltd., ³Tokyo Inst. Tech., ⁴JST/ Japan and ⁵POSTECH/ Korea)

WeP-16 Fabrication and Characterization of 1.3-μm Quantum-dot Distributed Feedback Lasers with Deeply Etched Grating

Y. Tanaka¹, N. Hatori³, M. Matsuda^{1,2}, K. Takada³, H. Sudo^{1,2}, M. Ishida³, Y. Nakata³, T. Yamamoto^{1,2}, M. Sugawara^{1,2,4} and Y. Arakawa³ (¹Fujitsu Labs. LTD., ²Fujitsu LTD., ³Univ. of Tokyo, ⁴QD Laser Inc./ Japan)

WeP-17 Tailor-made Optical Properties of InAs Quantum Dots by Controlling Indium Segregation

T. Inoue, H. Mizuno, M. Mamizuka, O. Kojima, T. Kita and O. Wada (Kobe Univ./ Japan)

WeP-18 Gain Dynamics in P-doped 1.3-μm Quantum Dot Lasers

T. Yukutake, M. Ishida, H. Ebe, Y. Nakata and Y. Arakawa (Univ. of Tokyo/ Japan)

WeP-19 InAs Quantum Dots by High Growth-temperature and High Growth-rate for Single-dot Optical Study

N. Kumagai, K. Watanabe, M. Nomura, Y. Ota and Y. Arakawa (Univ. of Tokyo/ Japan)

WeP-20 Photoluminescence of Study of the Isoelectronic Be pair Center in Si

T. Ishikawa¹, K. Yoshizawa¹, T. Sekiguchi¹ and K.M. Itoh^{1,2} (¹Keio Univ., ²Univ. of Tokyo/ Japan)

WeP-21 Strong photoluminescence from silicon with randomized photonic crystal pattern

S. Nakayama, S. Ishida, S. Iwamoto and Y. Arakawa (Univ. of Tokyo, Japan)

WeP-22 Generation of Attosecond Pulses and Their Interaction with Molecules

T. Okino^{1,2}, K. Yamanouchi^{1,2}, Y. Nabekawa², K. Midorikawa² (¹Univ. of Tokyo, ²RIKEN/ Japan)

WeP-23 “Mouth of the Void”: The strong Effect of Rim Modes on Localized Plasmons

R. Cole¹, J. Baumberg¹ and F. Garcia de Abajo² (¹Univ. of Cambridge/ UK, ²CSIC/ Spain)

10th April (Thursday)**Non-Classical Light Sources (9:30 - 12:00)****ThA-1 (9:30) (Invited) Flying Q-bits from Single Quantum Dots for Future Quantum Cryptography**

D. Bimberg and S. Rodt (Technical Univ. of Berlin, Germany)

ThA-2 (10:00) (Invited) Distillation of Entanglement and Time Reordering in Quantum Dot

J. Avron, Technion/ Israel

ThA-3 (10:30) Coherence of a Quantum Dot Source of Entangled Photons

R.J. Young¹, R.M. Stevenson¹, A.J. Hudson^{1,2}, A.J. Bennett¹, C.A. Nicoll², P. Atkinson², K. Cooper², D.A. Ritchie² and A.J. Shields¹ (¹Toshiba Research Europe Ltd., ²Univ. of Cambridge/ UK)

ThA-4 (10:45) Second-order Correlation Function of Entangled Photon Pairs Generated from a V-Type System in Microcavity

H. Ajiki¹ and H. Ishihara² (¹ Osaka Univ., ²Osaka Prefecture Univ./ Japan)

ThA-5 (11:00) Coherence and Entanglement Control of Two Quantum Dots

E. del Valle, F.P. Laussy and C. Tejedor (Univ. Autónoma de Madrid/ Spain)

ThA-6 (11:15) Optical Properties and Electronic Structure of Telecommunication Bands InAs Quantum Dots on InP Substrate

T. Miyazawa¹, T. Nakaoka¹, K. Takemoto², S. Hirose², S. Okumura², M. Takatsu², T. Usuki¹, N. Yokoyama^{1,2} and Y. Arakawa¹ (¹Univ. of Tokyo, ²Fujitsu Labs./ Japan)

ThA-7 (11:30) Single-photon Filtering Using a Two-level System in a Two-sided Cavity

K. Koshino (Tokyo M&D Univ., PRESTO, JST, Japan)

ThA-8 (11:45) Towards Scalable Sources of Indistinguishable-Photons with Semiconductor Quantum Dots: An Evolutionary Programming Approach

E.C. Cancellieri^{1,2}, F. Troiani² and G. Goldoni^{2,3} (¹Scuola Normale Superiore NEST CNR-INFM, ²S3 National Research Center CNR-INFM, ³Univ. of Modena and Reggio Emilia/ Italy)

Excitons & Plasmons (13:30 - 15:30)

ThB-1(13:30) (Invited) Optical manipulation of Quantum-degenerate Excitonic Particles

M. Kuwata-Gonokami (Univ. of Tokyo/ Japan)

ThB-2 (14:00) Radiative Decay Theory of Excitons in Weak-confinement to Bulk Regime

M. Bamba^{1,2} and H. Ishihara² (¹Osaka Univ., ²Osaka Prefecture Univ./ Japan)

ThB-3 (14:15) Theory of Radiation Force on a Single-Walled Carbon Nanotube under an Excitonic Resonance Condition

T. Iida^{1,2}, T. Ishikawa¹, H. Ajiki³ and H. Ishihara¹ (¹Osaka Prefecture Univ., ²PRESTO-JST, ³Osaka Univ./ Japan)

ThB-4 (14:30) Atom Nanolithography with Atom Pinhole Camera

P. Melentiev, D. Lapshin and V. Balykin (Inst. of Spectroscopy/ Russia)

ThB-5 (14:45) Near-field Photoluminescence Imaging of Whispering-gallery Modes in Semiconductor Micro-disks with Embedded Quantum Dots

A. Mintairov¹, Y. Chu¹, Y. He¹, J. Merz¹, S. Blokhin², M. Maximov², A. Nadtochy², S. Oktiabrsky³ and V. Tokranov³ (¹Univ. of Notre Dame/ USA, ²Ioffe Inst./ Russia, ³SUNY/ USA)

ThB-6 (15:00) Enhanced Optical Activity of Metal Chiral Gratings with Complimentary Double-layered Structures in the Terahertz Region

N. Kanda^{1,2}, K. Konishi^{1,2} and M. Kuwata-Gonokami^{1,2} (¹Univ. of Tokyo, ²CREST(JST)/ Japan)

ThB-7 (15:15) Surface-plasmon-enhanced Magneto-optics via the Near Field of a Linear Nanoprobe

V. Kosobukin (A. F. Ioffe Physico-Technical Inst./ Russia)

Quantum Information & Coherent Phenomena (16:00 - 18:00)

ThC-1 (16:00) (Invited) Silicon Quantum Information Processing

K. M. Itoh (Keio Univ./ Japan)

ThC-2 (16:30) Spin Quantum Dot Interferometer Employing the Decoherence in Adiabatic Passage Method

E. Alcobey^{1,2}, E. Finkman² and Y. Oreg¹ (¹Weizmann Inst. of Science, ²The Technion - Israel Inst. of Technology/ Israel)

ThC-3 (16:45) Optical Spin Control in Semiconductor Microcavities

A. Bramati¹, C. Leyder¹, M. Romanelli¹, J.Ph. Karr¹, A.V. Kavokin², T.H.C. Liew², I.A. Shelykh², G. Malpuech³ and E. Giacobino¹ (¹Univ. Pierre et Marie Curie/ France, ²Univ. of Southampton/ UK, ³Univ. Blaise Pascal, LASMEA/ France)

ThC-4 (17:00) Teleportation of Squeezed States

H. Yonezawa and A. Furusawa (Univ. of Tokyo, CREST/ Japan)

ThC-5 (17:15) Secure Optical Communications Using Antisqueezed Light

T. Tomaru and S. Sasaki (Hitachi/ Japan)

ThC-6 (17:30) Manipulating Quantum-confined Stark Shift in Electroluminescence from Quantum Dots with Dide Gates

X. Xu, A. Andreev and D. Williams (Hitachi Cambridge Laboratory/ UK)

ThC-7 (17:45) Coherent Phases and Phenomena in Graphene

Yu.E. Lozovik¹, A.A. Sokolik¹ and M. Willander² (¹Inst. of Spectroscopy/ Russia, ²Univ. of Lincoping/ Sweden)

Closing (18:00-18:10)

(updated at March 21, 2008)