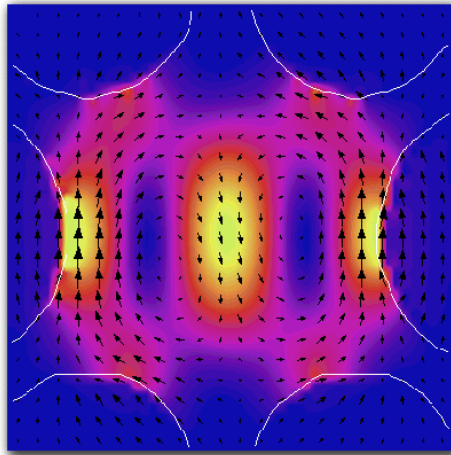


## Program Schedule

# Photonic and Electromagnetic Crystal Structures PECS-IV



### *Molding the Flow of Light On-Chip*

October 28-31, 2002

Los Angeles, California, USA

Monday- October 28, 2002

**Tutorial Session at *The Institute for Pure and Applied Mathematics (IPAM Building)*  
*UCLA Campus***

(Presider: Dr. Shawn Lin - Sandia National Labs, USA)

1:30PM-2:00PM	Check In Registration/ Refreshments
2:00PM-3:00PM	Photonic bandgap materials: semiconductor of light Prof. Sajeev John, University of Toronto, Canada
3:00PM-3:15PM	Break
3:15PM-4:15PM	Design, Fabrication and Characterization of Photonic Crystal Nanocavities Prof. Axel Scherer, California Institute of Technology, USA
4:15PM-4:30PM	Break
4:30PM-5:30PM	Gyrotropic and Nonlinear Effects in Photonic Crystals Prof. Alex Figotin, University of California-Irvine, USA
5:30PM-5:45PM	Break
5:45PM-7:15PM	<b><i>Reception at IPAM</i></b>

Tuesday- October 29, 2002

**Session A – Opening Talk**

*At Sunset Village, Northwest Auditorium, located on 330 De Neve Drive, UCLA Campus*

(Presider: Dr. Shawn Lin - Sandia National Labs, USA)

- 7:30AM-8:15 AM Continental Breakfast/Check In
- 8:15AM-8:40 AM (invited) Photonic Bandgap Based Designs for Nano-Photonic Integrated Circuits  
Prof. Eli Yablonovitch, University of California-Los Angeles, USA
- 8:40AM-9:05 AM (invited) Enabling Anomalous Light Behavior with Photonic Crystals  
Prof. J. D. Joannopoulos, Massachusetts Institute of Technology, USA
- 9:05AM-9:30 AM (invited) Transverse Bragg Lasers  
Prof. A. Yariv, California Institute of Technology, USA
- 9:30AM-9:55 AM (invited) III-V Semiconductor Based 3D and 2D Photonic Crystals and Their Applications,  
Prof. S. Noda, Kyoto University, Japan
- 9:55AM-10:20 AM (invited) Optimal Design of Photonic Crystals  
Prof. David Dobson, University of Utah, USA
- 10:15AM-10:30 AM Morning Break

**Session B – Two-dimensional photonic crystal circuits**

(Presider: Prof. S. John - University of Toronto, Canada)

- 10:30AM-10:55AM (invited) Photonic Crystal Microcircuits  
Prof. T. Krauss, U. St. Andrews, Scotland
- 10:55AM-11:20AM (invited) Physics of the Third Dimension in 2D Modeling of Planar Photonic Crystals  
Prof. Henri Benisty, Ecole Polytech, France
- 11:20AM-11:45AM (invited) 2D Photonic Crystal Guides, Bends, Cavities and Y-Splitters  
Dr. E. Chow, Agilent Technology, USA
- 11:45AM-12:00AM Optical- and Pulse-propagation Characteristics of AlGaAs-based 2D Photonic Crystal Slabs and Waveguide-devices  
Prof. K. Inoue, Chitose Institute of Science and Technology, Japan
- 12:00AM-12:15AM Three Mechanisms for High Q Without a Complete Gap  
Dr. S Johnson, Massachusetts Institute of Technology, USA
- 12:15AM-12:30PM Localized Modes with High Quality Factor Defined by Two Dimensional Photonic Crystal Cavities  
T. Yoshie, California Institute of Technology, USA
- 12:30PM-1:45PM **Lunch at Covel Commons (Grand Horizon Room)**

**Tuesday- October 29, 2002**

**Session C – OPAL/ 3D photonic crystal structures**

***At Sunset Village, Northwest Auditorium***

(Presider: Prof. T. Baba -Yokohama University, Japan)

- |               |  |
|---------------|--|
| 2:00PM-2:25PM | (invited) On-Chip Assembly of Si Photonic Band Gap Crystal<br>Prof. D. Norris, University of Minnesota, USA  |
| 2:25PM-2:50PM | (invited) Colloidal Photonic Crystals<br>Prof. V. Colvin, Rice University, USA   |
| 2:50PM-3:15PM | (invited) Photonic Crystal Engineering by Holographic Lithography<br>Prof. Andrew Turberfield, Oxford University, UK   |
| 3:15PM-3:30PM | On-chip Diamond Architectures by Nanorobotic Manipulation of<br>Microspheres<br>Dr. C. Lopez, Instituto de Ciencia de Materiales de Madrid, Spain                    |
| 3:30PM-3:45PM | Self-Organization and Multi-photon Polymerization of Waveguide<br>Structures within 3-D Colloidal Crystals<br>Prof. P. Braun, University of Illinois- Champaign, USA |
| 3:45PM-4:00PM | Heterostructured Photonic Crystal Waveguides and Components:<br>Compatibility with Fiber Optics<br>Dr. S. Kawakami, Tohoku University, Japan                         |

**Session D – Poster-I      1D, 2D photonic crystals**  
***At Covel Commons (West Coast Room and Northridge Room)***  
4:15PM-6:00PM

- I-01                      Optical dielectric multilayer structures with a dual-periodicity  
Y. Akita, Institute for Chemical Research, Kyoto University
  
- I-02                      Scattering method calculation of the electromagnetic properties of two-  
dimensional photonic crystals of finite thickness  
Prof. J.-P. Albert, Universite Montpellier II, France
  
- I-03                      Key Issues for Ultra-Fast All-Optical Devices Based on Two-Dimensional  
Photonic Crystal Slab  
Dr. K. Asakawa, FESTA, Japan
  
- I-04                      Evanescent coupling between photonic crystal slab waveguides and silica  
optical fibers  
P. Barclay, California Institute of Technology, USA
  
- I-05                      Chessboard-like two-dimensional electromagnetic crystals formed by  
infinite wires with two types of periodical loads  
P.A. Belov, Helsinki University of Technology, Finland
  
- I-06                      SOI Photonic Crystal components fabricated with deep UV lithography  
W. Bogaerts, Ghent University-IMEC, Belgium
  
- I-07                      Refractive properties of a two-dimensional photonic bandgap prism  
J. Bravo-Abad, Universidad Autonoma de Madrid, Spain
  
- I-08                      Influence of disorder on transmission properties of incomplete photonic  
band gaps  
Dr. D. Cassagne, Universite Montpellier II, France
  
- I-09                      Loss Estimation in 2D Photonic Crystal Waveguides Using the 3D Finite  
Difference Time Domain Method  
Dr. M. Cryan, University of Bristol, UK
  
- I-10                      Influence of Etching Depth on Radiation Losses in Photonic Crystal  
Waveguides  
Prof. M. Eich, University of Technology Hamburg, Germany
  
- I-11                      Moderate Refractive Index Photonic Crystal Waveguides  
Prof. M. Eich, University of Technology Hamburg, Germany
  
- I-12                      Cross waveguides in biperiodic two-dimensional photonic crystals  
Dr. C. Emmanuel, Université Montpellier II, France
  
- I-13                      Out-of-plane losses in bi-dimensional photonic crystals: analytical model  
and optical measurements  
Dr. R. Ferrini, IPEQ-EPFL, Switzerland

**Tuesday- October 29, 2002**

- I-14 Evidence of Fano-like interference phenomenon in locally resonant materials  
C. Goffaux, Facultés Universitaires ND de la Paix, Belgium
- I-15 Design, Fabrication and Characterization of SOI-based Two-dimensional Photonic Band Gap Structures  
Dr. E. Hadji, CEA/Grenoble, France
- I-16 Characteristics of a coupled-defect waveguide in photonic crystals  
K. Hosomi, Hitachi, Japan
- I-17 Optical study of bi-dimensional photonic crystal structures fabricated by inductively coupled plasma etching in InP-based waveguides  
Dr. R. Houdre, IPEQ-EPFL, Switzerland
- I-18 Photonic Crystal Heterostructures: Waveguides and Resonant Structures  
E. Istrate, University of Toronto, Canada
- I-19 Photonic Crystal and its Principle for Fabrication  
Dr. G.K. Johri, D.A-V. College, India
- I-20 Some "Unusual" Properties of Waveguides and Resonators Related with a New Class of Photonic Crystal Structures  
Dr. T. Kawashima, Tohoku University, Japan
- I-21 Coupling and Decoupling of Localized Photons in Two-Dimensional Photonic Crystals  
Dr. C.S. Kee, Ajou University, Korea
- I-22 The long-wavelength limit for two-dimensional photonic crystals  
Dr. A. Krokhin, Universidad Autónoma de Puebla, Mexico
- I-23 Free-standing membrane photonic crystal slabs: near- and far-field optical studies  
Prof. L. Kuipers, University of Twente, Netherland
- I-24 Amplification in 1D periodic and random active media in the vicinity of the lasing condition  
Dr. V. Kuzmiak, UC Irvine, USA
- I-25 Experimental and theoretical characterization of H<sub>2</sub> PC cavities defined in silicon on insulator  
M. Loncar, California Institute of Technology, USA
- I-26 2-D simulations of various compact spot-size converters  
B. Luyssaert, Ghent University, Belgium
- I-27 Radiative losses of linear waveguides in photonic crystal slabs  
Dr. L. Marine, Universite Montpellier II, France
- I-28 Photonic crystal circuits: Localized modes and waveguide couplers  
Pro. A.R. McGurn, Western Michigan University, USA

**Tuesday- October 29, 2002**

- I-29 Band Structure, Density of States, and Modes of Photonic Crystal Slabs  
Pro. A.R. McGurn, Western Michigan University, USA
- I-30 Polarization response of two-dimensional metallic photonic crystals studied by terahertz time domain spectroscopy  
F. Miyamaru, Osaka University, Japan
- I-31 Highly Precise/efficient calculation method for the eigenfrequencies of photonic crystals  
Dr. Y. Ohtera, Tohoku University, Japan
- I-33 Focusing of light into a row defect waveguide using the negative refraction behavior of a photonic crystal  
Dr. D. Peters, Sandia Nat. Labs, USA
- I-34 Band Gap Effects in Asymmetric Photonic Crystal Slabs  
Dr. M. Qiu, Royal Institute of Technology (KTH), Sweden
- I-35 Photonic crystal defect cavities: prospects for high-efficiency single-photon sources  
C. Reese, UCSB, USA
- I-37 Enhanced Transmission through Two-dimensional AlGaAs Photonic Crystal Membrane Bent Waveguides  
Dr. Y. Sugimoto, The Femtosecond Technology Research Association, Japan
- I-38 1D and 2D photonic crystal sheets for THz waves fabricated by a commercially available color printer Two-dimensional dielectric sphere array for sub-THz waves  
T. Kondo, Osaka University, Japan
- I-39 Two-dimensional dielectric sphere array for sub-THz waves  
T. Kondo, Osaka University, Japan
- I-40 A New Mechanism for the Study of Photonic Band Gap Using Effective Refractive Index Minimum and Scattering Strength  
A. Tiwari, D.A-V. College, India
- I-41 Long-life-time Leaky Modes of a Photonic-Crystal-Slab Line-Defect Waveguide  
M. Tokushima, NEC, Japan
- I-42 Wave dropping in multiport waveguide structures based on photonic crystals  
Prof. O. Vanbesien, IEMN, France
- I-43 Efficient Characterization of Photonic Crystal Defect Microcavities for Cavity QED  
Dr. J.B. Williams, Caltech, USA
- I-44 Observation of a resonant light emission from an electron beam exciting a photonic band  
Dr. K. Yamamoto, The Institute of Physical and Chemical Research, Japan

**Tuesday- October 29, 2002**

- I-45 Design and fabrication of optical delay lines for ultrashort pulses based on photonic crystal coupled cavity waveguides  
Dr. T. Yang, FESTA, Japan
- I-46 Mathematical simulation of the conversion femtosecond pulses to the second harmonic in photonic crystal.  
Prof. R.G. Zaporozhchenko, B.I. Stepanov Institute of Physics National Academe, Belarus
- I-47 Wavelength selective photonic crystal waveguide directional couplers based on InP  
Dr. J. Zimmermann, University of Würzburg, Germany
- I-48 Negative refraction and left-handed behavior in two-dimensional photonic crystals  
S. Foteinopoulou, Iowa State University, USA
- I-49 Controlling mode properties in photonic crystal waveguides  
Prof. A. Adibi, Georgia Institute of Technology, USA
- I-50 Integration of polymetric photonic bandgap composites with piezoelectric actuators for rejection wavelength tuning  
Dr. John Ballato, Clemson University, USA
- I-51 A simple a priori determination of optical transmission gaps in photonic crystals of weak symmetry  
Dr. John Ballato, Clemson University, USA
- I-52 Toward Magnetic Metamaterials: Creating Radiating Magnetic Sources in Photonic Crystals  
M. L. Povinelli, MIT, USA
- I-54 Negative Group Velocity in Uniform Dielectric Waveguides -- Counter-intuitive but Indeed Possible  
Mihai Ibanescu, MIT, USA
- I-55 Excited by the sound of photonic crystals: Phonon-polariton excitations in photonic crystals  
Kerwyn Casey Huang, MIT, USA

**Session E– Photonic Crystal lasers/ non-linearity-I**

*At Sunset Village, Northwest Auditorium, located on 330 De Neve Drive, UCLA Campus*

(Presider: Dr. Jonathan Dowling - Caltech/JPL, USA)

- |                 |  |
|-----------------|--|
| 7:30AM-8:15AM   | Continental Breakfast  |
| 8:15AM-8:40AM   | (invited) Low-threshold Photonic Crystal Laser<br>Marko Loncar and A. Scherer, California Institute of Technology, USA                                     |
| 8:40AM-9:05AM   | (invited) Two-dimensional Photonic Crystal Slab Semiconductor Lasers<br>Dr. H.-Y. Ryu, Kaist, Korea  |
| 9:05AM-9:30AM   | (invited) Photonic Crystals for Quantum Cascade Laser Mode Control<br>Dr. Jerry Meyer, Naval Research Labs., USA   |
| 9:30AM-9:45AM   | Single-mode PC Based Semiconductor Lasers<br>Dr. M. Kamp, University Wurzburg, Germany   |
| 9:45AM-10:00AM  | Laser Emission from Two-dimensional Photonic Crystal Microcavities<br>Dr. R. Shimada, Kyoto University, Japan  |
| 10:00AM-10:15AM | Observation of Defect Modes of Two-Dimensional Photonic Crystal Slab<br>with Self-Assembled InAs Quantum Dots<br>Prof. Y. Arakawa, Tokyo University, Japan |
| 10:15AM-10:30AM | Morning Break  |

**Session F– New Physics and Materials**

(Presider: Prof. J.D. Joannopoulos - MIT, USA)

- |                 |  |
|-----------------|--|
| 10:30AM-10:55AM | (invited) Sub Wavelength Imaging Using Photonic Materials<br>Prof. John Pendry, Imperial College, UK                         |
| 10:55AM-11:20AM | (invited) Left-Handed Materials<br>Prof. Sheldon Schultz, UC-San Diego, USA  |
| 11:20AM-11:45AM | (invited) Quantum Graph Models for Wave Propagation in Thin<br>Structures<br>Prof. Peter Kuchment, Texas A&M University, USA |
| 11:45AM-12:00AM | Magnetic Periodic Structures -- MAGNONIC and MAGNETO-<br>Photonic Crystals<br>Prof. C. Tsai, Academia Sinica, Taiwan         |
| 12:00AM-12:15AM | Raman Scattering of Light in Photonic Band Gap Structures<br>Prof. S.V. Gaponenko, National Academy of Sciences of Belarus   |

12:15AM-12:30PM                      Fourier Space Design of High-Q Photonic Crystal Defect Cavities  
Prof. O. Painter, California Institute of Technology, USA

12:30PM-1:45PM                      **Lunch at *Covel Commons (Grand Horizon Room)***

**Session G – Photonic Crystal Theory and Math**

(Presider: Prof. K.M. Ho - Iowa State University/Ames Labs)

2:00PM-2:25PM                      (Invited) Design of Omni-directional Mirrors by Optimization Methods  
Prof. F. Santosa, University of Minnesota, USA

2:25PM-2:50PM                      (Invited) Level Set Methods for Optimization Problems Involving  
Geometry and Constraints  
Prof. S. Osher, UCLA, USA

2:50PM-3:15PM                      (Invited) Periodic Gratings, Guidance of PBG with Line Defects  
Prof. Habib Ammari, Ecole Polytechnique, France

3:15PM-3:40PM                      (Invited) Waveguides in Finite Height Two-Dimensional Photonic  
Crystals  
Prof. C. Soukoulis, Iowa State University/Ames Labs, USA

3:40PM-3:55PM                      Not all Localized States are the Same: Statistics of Localized States at  
the Tails of One-dimensional Anderson Model with a Diagonal Disorder  
Dr. L. Deych, Queens College, USA

3:55PM-4:10PM                      An Inverse Problem Approach to Designing Photonic Crystals for Cavity  
Quantum Electrodynamics Experiments  
Dr. JM Geremia, California Institute of Technology, USA

4:10PM-4:25PM                      Maximally Localised Generalised Wannier Functions for Photonic  
Lattices  
Dr. D. Whittaker, University of Sheffield, UK

**Session H – Poster-II                      3D Photonic Crystals, Fibers, OPALs and New Physics**

***At Covel Commons (West Coast Room and Northridge Room)***

4:40PM-6:00PM

II-01                                      High-speed assembly technology for three-dimensional photonic crystals  
Dr. K. Aoki, RIKEN, Japan

II-02                                      New Three-dimensional Photonic Crystals with Complete Band Gaps  
Prof. R. Biswas, Iowa State University, USA

II-03                                      Surface Plasmon Polariton Waveguiding in Random Surface Nanostructures  
Dr. S.I. Bozhevolnyi, Aalborg University, Denmark

- II-04 Investigation of Radiation Sources Embedded in Photonic Crystals  
I. Bulu, Bilkent University, Turkey
- II-05 A Flexible, Cost-Effective Manufacturing Process for Photonic Crystal Waveguides and Resonators  
D. Burckel, University of New Mexico, USA
- II-06 Finite Difference Electromagnetic Solvers for Photonic Crystal Fibers and Relevant Photonic Band Gap Structures  
Prof. H.C. Chang, National Taiwan University, Taiwan
- II-07 Robocasting approach for fabricating 3D photonic band gap structures in GHz and THz frequencies  
Dr. P. Clem, Sandia Nat. Labs, USA
- II-08 Fabrication of 3D dielectric THz PBGs via ceramic Robocasting  
Dr. P. Clem, Sandia Nat. Labs, USA
- II-09 Dispersion Characteristics of Photonic Crystal Based Coupled Cavity Waveguides  
E. Cubukcu, Bilkent University, Turkey
- II-10 Self-Assembled Metallo-Dielectric Photonic Crystals with Composite  
Dr. M. Deutsch, University of Oregon, USA
- II-11 Optical Reflectivity and Light Emission from Erbium Doped 3D Silicon Layer-by-layer Photonic Crystals  
Dr. M. Dood, FOM-AMOLF, Netherland
- II-12 An analytic modal expansion method applied to 3D layer-by-layer metallic photonic crystals.  
Dr. Ihab El-Kady, Sandia National Labs, USA
- II-13 3D woodpile and 2D hexagonal photonic crystals made from high index chalcogenide glasses  
Dr. A. Feigel, Soreq NRC, Israel
- II-14 Effective Second Order Susceptibility in Photonic Crystals Composed from Centrosymmetric Materials  
Dr. A. Feigel, Soreq NRC, Israel
- II-15 Fabrication of photonic crystal microprisms based on artificial opals  
Dr. R. Fenollosa, UPV, Spain
- II-16 Optically probing the (111) surface Brillouin zone in opals  
J. Galisteo, Instituto de Ciencias Materiales de Madrid (CSIC), Spain
- II-17 Photonic Crystals for Energy Applications  
Dr. J. Gee, Sandia National Labs, USA
- II-18 Temperature-dependent radiative properties of a three-dimensional photonic crystal in the infrared region  
Dr. O. Gokce, New Jersey Institute of Technology, USA

- II-19                    Fabrication of multilayer photonic band gap fibers  
S. D. Hart, MIT, USA
  
- II-20                    Reflection and transmission properties of multilayer photonic band gap  
fibers  
B. Temelkuran, MIT, USA
  
- II-21                    Tunable multilayer photonic band gap fibers  
G. Benoit, MIT, USA
  
- II-22                    Modified spontaneous emission rate in finite inverse opal structures  
C. Hermann, German Aerospace Center, Germany
  
- II-23                    Antimony trisulfide inverted opals. Growth, characterization and photonic  
properties  
B. Hernandez Juarez, Instituto de Ciencia de Materiales de Madrid (CSIC),  
Spain
  
- II-24                    Asymmetric localization of planar defect modes in pseudo-simple-cubic 3D  
photonic crystals  
Dr. M. Iida, CRL, Japan
  
- II-25                    Three-dimensional self-assembly of colloids at an air-water interface  
S. Im, Korea Advanced Institute of Science and Technology, Korea
  
- II-26                    Accessing to Optical Limiting Properties of Metallo-Dielectric Photonic  
Band Gap Structures  
M.C. Larciprete, Università La Sapienza di Roma, Italy
  
- II-27                    Improvements of Slot Antenna Features Using PBG Substrates  
B. Martinez, Universidad Publica de Navarra, Spain
  
- II-28                    Fabrication of metallic photonic crystals by optical lithography  
K. Mellert, University of Bonn, Germany
  
- II-29                    The influence of finite substrates on the properties of periodic structures  
B.K. Minhas, University of New Mexico, USA
  
- II-30                    Optical study of the photonic band gap in Silicon inverse opals  
E. Palacios-Lidon, Instituto de Ciencia de Materiales de Madrid CSIC, Spain
  
- II-31                    Superresonant conversion of the far-infrared electromagnetic wave  
polarization in a planar one-dimensional plasmon-polaritonic crystal  
Dr. V.V. Popov, Institute of Radio Engineering and Electronics, Russia
  
- II-32                    Interaction between a photonic and a polariton gap  
Dr. C.G. Ribbing, Inst of material Science, Sweden
  
- II-33                    Opal-based photonic crystals for optoelectronic circuits  
Dr. S. Romanov, University of Wuppertal, Germany
  
- II-34                    Superprism effect in a tetrahedron-shaped three dimensional photonic crystal  
Dr. J. Sanchez-dehesa, Universidad Autonoma de Madrid, Spain

- II-35 3D Photonic Crystal Device Structures by Holographic Lithography  
J. Scrimgeour, University of Oxford, UK
- II-36 Waves in 1-D photonic crystal via Quasi-Normal-Modes Description:  
classical and nonclassical aspects  
Dr. S. Severini, universita' di roma la sapeinza, Italy
- II-37 Optical directional couplers based on auto-cloned photonic crystals M.  
Shirane, NEC Corp., Japan
- II-38 Propagation Characteristics of Photonic Crystal Fibers & Waveguides  
Dr. R.K. Sinha, Delhi College of Engineering, India
- II-39 Low Cost, Large Area Fabrication of Yablonovite in the Infrared  
Dr. W. Sweate, Sandia National Labs, USA
- II-40 Out-of-plane fiber coupler for coupling to high-index-contrast waveguides  
D. Taillaert, Gent University – IMEC, Belgium
- II-41 Bandgap engineering in one dimensional photonic crystal structures  
S.K. Varshney, Delhi College of Engineering, India
- II-42 Excitation of electromagnetic modes at photonic-crystal surfaces using  
optical waves or charged particles.  
Prof. J.P. Vigneron, University of Namur, Belgium
- II-43 Stop-band mediated diffraction  
Dr. Y. Vlasov, IBM Research, USA
- II-44 Fabrication of 3D fcc Photonic Crystal Templates by Holography  
Dr. G. Von Freymann, Universität Karlsruhe (TH), Germany
- II-45 Analytic Modal Solutions to Layer-by-Layer Metallic Photonic Crystals  
Dr. Z.Y. Li, Iowa State University/Ames National Labs, USA
- II-46 Photonic Band Gap Device Modeling Using FEMLAB and Adaptive  
Wavelet Techniques  
Dr. Bedros Afeyan, Polymath Research Inc., USA
- II-47 Tunable Periodic Surface Textures for Microwave Beam Steering  
Dan Sievenpiper, HRL Laboratories, USA

6:45 – 8:45PM

**Banquet and Open Discussion at  
*Covel Commons (Grand Horizon Room)***

**Session I– Photonic Crystal Fibers and Omni-Fibers**

*At Sunset Village, Northwest Auditorium, located on 330 De Neve Drive, UCLA Campus*  
(Presider: Prof. Axel Scherer - California Institute of Technology, USA)

- |                 |   |
|-----------------|---|
| 7:30AM-8:15AM   | Continental Breakfast   |
| 8:15AM-8:40AM   | (invited) Photonic Crystal Fibers<br>Fetah Benabid and Phillip Russell, University of Bath, UK  |
| 8:40AM-9:05AM   | (invited) Progress on Photonic Crystal Fibers<br>A. Bjarklev, Tech Univ Denmark/ Crystal-Fibre, Denmark   |
| 9:05AM-9:30AM   | (invited) Cylindrical Photonic Band Gap Fibers: theoretical analysis,<br>fabrication, methodology and applications<br>Prof. Yoel Fink, MIT, USA |
| 9:30AM-9:55AM   | (invited) Self Assembled Block Copolymer Based Photonic Crystals<br>Prof. Edwin Thomas, MIT, USA  |
| 9:55AM-10:10AM  | Experimental Realization and Testing of Bragg Fibers at 1550 and<br>400nm Wavelengths<br>Dr. J.G. Fleming, Sandia National Labs, USA            |
| 10:10AM-10:25AM | Asymptotic and Coupled Mode Analysis of Bragg Fibers and<br>Dielectric Coaxial Fibers<br>Dr. Y. Xu, California Institute of Technology, USA     |
| 10:25AM-10:40AM | Morning Break   |

**Session J– Photonic Crystal Lasers/ Non-linearity-II**

(Presider: Prof. J.D. Joannopoulos - MIT, USA)

- |                 |  |
|-----------------|--|
| 10:40AM-11:05AM | (invited) All Optical Switching and Bi-stability in Photonic Crystals<br>Dr. Martin Soljacic, MIT, USA   |
| 11:05AM-11:30AM | (invited) Phase Matching Conditions, High Conversion Efficiencies,<br>and (invited) Nonlinear Response of Microcavity States in 2D Planar<br>Waveguide-Based Photonic Crystals<br>Prof. Jeff Young, University of British Columbia, Canada |
| 11:30AM-11:45AM | Bistable Behavior of an Interferometer Based on Photonic Crystals<br>V. Lousse, University of Namur, Belgium   |
| 11:45AM-12:00AM | Nonlinear Magneto-optics in Magneto-photonic Microcavities<br>Dr. O. Aktsipetrov, Moscow State University, Russia  |

Thursday- October 31 2002

12:00AM-12:15AM Experimental Realization of Three-dimensional Tungsten Photonic Crystal  
Dr. Shawn Y. Lin, Sandia National Laboratories

12:30PM-1:45PM **Lunch at *Covel Commons (Grand Horizon Room)***

**Session K – 2D Photonic Crystal and Dispersive Properties**

***At Sunset Village, Northwest Auditorium***

(Presider: Prof. Thomas Krauss - University of St. Andrews, Scotland)

2:00PM-2:25PM (Invited) Dispersive Behavior of Photonic Crystals: dispersion control and negative refraction  
Dr. M. Notomi, NTT, Japan

2:25PM-2:50PM (Invited) Dispersion and Trirefringence in Photonic Crystal Waveguides  
Prof. J. J. Baumberg, University of Southampton, UK

2:50PM-3:15PM (Invited) Quantitative Evaluation of Superradiance in Photonic Crystals  
Prof. K. Sakoda, Hokudai University, Japan

3:15PM-3:30PM Resolution of Photonic Crystal Superprism  
T. Matsumoto, Yokohama National University, Japan

3:30PM-3:45PM Tunable 2D Photonic Crystal Slabs Exhibiting Extraordinary Refraction and Dispersion  
Prof. W. Park, University of Colorado, USA

3:45PM-4:00PM Out-of-Plane Losses for Row-Defect Photonic Crystal Waveguides  
Dr. R. Hadley, Sandia National Labs, USA

**Session L – 3D Photonic Crystal/ Metallic Crystal**

(Presider: Dr. Henry Everitt - Army Research Office/ Duke University, USA)

4:15PM-4:40PM (Invited) Waveguide Network in Three-dimensional Layer-by-layer Photonic Crystals  
Prof. KM Ho, Iowa State University/Ames Labs, USA

4:40PM-5:05PM (Invited) Metallic Photonic Band Gap Systems  
Prof. C.T. Chan, Hong Kong University of Science and Technology, Hong Kong

5:05PM-5:20PM Thermal Emissivity of 3D Photonic Band-Gap Materials  
Dr. J. Dowling, California Institute of Technology, USA

**Wednesday- October 30 2002**

5:20PM-5:35PM

Coupled-cavity Devices in Photonic Band Gap Structures  
Dr. M. Bayindir, Bilkent University, Turkey

5:35PM-5:50PM

Infrared Gas Sensor Based on Surface Plasmon Interaction with  
Photonic Crystal  
Dr. I. Puscasu, Ion Optics Inc., USA

**Good-Bye and See you at PECS-V!**