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**GORDON RESEARCH CONFERENCES** *frontiers of science*

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**Nancy Ryan Gray, Ph.D.**

Director

**2011 GORDON RESEARCH CONFERENCE  
on QUANTUM CONTROL OF LIGHT & MATTER**

**FINAL PROGRESS REPORT**

DEPARTMENT OF ENERGY

GRANT NO. DE-SC0006541

The Gordon Research Conference on QUANTUM CONTROL OF LIGHT & MATTER was held at Mount Holyoke College, South Hadley, Massachusetts, July 31 – August 5, 2011. The Conference was well-attended with 119 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students. Of the 119 attendees, 42 voluntarily responded to a general inquiry regarding ethnicity which appears on our registration forms. Of the 42 respondents, 19% were Minorities – 5% Hispanic, 14% Asian and 0% African American. Approximately 14% of the participants at the 2011 meeting were women.

In designing the formal speakers program, emphasis was placed on current unpublished research and discussion of the future target areas in this field. There was a conscious effort to stimulate lively discussion about the key issues in the field today. Time for formal presentations was limited in the interest of group discussions. In order that more scientists could communicate their most recent results, poster presentation time was scheduled. Attached is a copy of the formal schedule and speaker program and the poster program. In addition to these formal interactions, "free time" was scheduled to allow informal discussions. Such discussions are fostering new collaborations and joint efforts in the field.

Thank you for your support of this Conference. As you know, in the interest of promoting the presentation of unpublished and frontier-breaking research, Gordon Research Conferences does not permit publication of meeting proceedings. If you wish any further details, please feel free to contact me. Thank you.

Sincerely,

*Ronald Kosloff, Conference Chairperson*  
HEBREW UNIVERSITY JERUSALEM

# Quantum Control of Light & Matter

July 31 - August 5, 2011

Mount Holyoke College

South Hadley, MA

Chairs: **Ronald B. Kosloff** & **Gustav G. Gerber**

Vice Chairs: **Thomas C. Weinacht** & **Misha Ivanov**

Quantum control of light and matter is the quest to steer a physical process to a desirable outcome, employing constructive and destructive interference. Three basic questions address feasibility of quantum control:

- The problem of controllability, does a control field exist for a preset initial and target state?
- Synthesis, constructively finding the field that leads to the target.
- Optimal Control Theory: optimizing the field that carries out this task.

These continue to be the fundamental theoretical questions to be addressed in the conference. How to realize control fields in the laboratory is an ongoing challenge. This task is very diverse viewing the emergence of control scenarios ranging from attoseconds to microseconds. How do the experimental observations reflect on the theoretical framework? The typical arena of quantum control is an open environment where much of the control is indirect. How are control scenarios realized in dissipative open systems? Can new control opportunities emerge? Can one null decoherence effects? An ideal setting for control is ultracold matter. The initial and final state can be defined more precisely. Coherent control unifies many fields of physical science. A lesson learned in one field can reflect on another. Currently quantum information processing has emerged as a primary target of control where the key issue is controlling quantum gate operation. Modern nonlinear spectroscopy has emerged as another primary field. The challenge is to unravel the dynamics of molecular systems undergoing strong interactions with the environment. Quantum optics where non-classical fields are to be generated and employed. Finally, coherent control is the basis for quantum engineering. These issues will be under the limelight of the Gordon conference on Quantum Control of Light and Matter.

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## SUNDAY

2:00 pm - 9:00 pm	Arrival and Check-in (Office Closed 6:00 pm - 7:00 pm)
6:00 pm	Dinner
7:30 pm - 7:40 pm	Welcome / Introductory Comments by GRC Site Staff
7:40 pm - 9:30 pm	<b>ULTRACOLD CONTROL</b>
7:40 pm - 8:00 pm	Discussion Leader: <b>Matthias Weidemüller</b> (Universitaet Heidelberg)
8:00 pm - 8:40 pm	<b>Jun Ye</b> (JILA / NIST and University of Colorado) "Precision Quantum Metrology - Probing and Controlling Ultracold Matter with Novel Light Source"
8:40 pm - 8:50 pm	Discussion

8:50 pm - 9:20 pm **Phillip Gould** (University of Connecticut)  
"Coherent Control of Ultracold Collisions and Ultracold Molecular Formation"

9:20 pm - 9:30 pm Discussion

## MONDAY

7:30 am - 8:30 am Breakfast

8:45 am Group Photo

9:00 am - 12:30 pm **CONTROLABILITY**

9:00 am - 9:20 am Discussion Leader: **Paul Brumer** (University of Toronto)

9:20 am - 9:50 am **Hideo Mabuchi** (Stanford University)  
"Principles and Applications of Coherent-Feedback Quantum Control"

9:50 am - 10:00 am Discussion

10:00 am - 10:30 am Coffee Break

10:30 am - 11:00 am **Niels Chr. Nielsen** (University of Aarhus)  
"Optimal Control Applied to Design of NMR and MRI Experiments"

11:00 am - 11:10 am Discussion

11:10 am - 11:40 am **Ugo Boscain** (CNRS Palaiseau)  
"Controllability of the Bilinear Schrödinger Equation"

11:40 am - 11:50 am Discussion

11:50 am - 12:20 pm **Dominique Sugny** (Lab Interdisciplinaire Carnot de Bourgogne)  
"Optimal Control in Nuclear Magnetic Resonance: Theoretical Developments and Applications"

12:20 pm - 12:30 pm Discussion

12:30 pm Lunch

1:30 pm - 4:00 pm Free Time

4:00 pm - 6:00 pm Poster Session

6:00 pm Dinner

7:30 pm - 9:30 pm **PHOTONS**

7:30 pm - 7:50 pm Discussion Leader: **Mikhail D. Lukin** (Harvard University)  
"Quantum control of atom-like systems in solid state"

7:50 pm - 8:30 pm **Yaron Silberberg** (Weizmann Institute of Science, Rehovot)  
"Short pulses in scattering media: Shaping by temporal speckles"

8:30 pm - 8:40 pm Discussion

8:40 pm - 9:20 pm **Moshe Shapiro** (Weizmann Institute of Science, Rehovot)  
"Use of Quantum Light to Control Material Processes and Entanglements"

9:20 pm - 9:30 pm Discussion

## TUESDAY

7:30 am - 8:30 am Breakfast

9:00 am - 12:30 pm	<b>COHERENT CONTROL</b>
9:00 am - 9:20 am	Discussion Leader: <b>Kenji Ohmori</b> (Institute for Molecular Science, Okazaki) "Coherent Control; Present and Future"
9:20 am - 9:50 am	<b>Beatrice Chatel</b> (CNRS-University of Toulouse) "Robust Quantum Dot State Preparation via Adiabatic Passage With Chirped Ultrashort Pulses"
9:50 am - 10:00 am	Discussion
10:00 am - 10:30 am	Coffee Break
10:30 am - 11:00 am	<b>Robert J. Levis</b> (Temple University, Philadelphia) "The Consequence of Phase for Control"
11:00 am - 11:10 am	Discussion
11:10 am - 11:40 am	<b>Nadav Katz</b> (Jerusalem) "Controlling the superconducting qudit"
11:40 am - 11:50 am	Discussion
11:50 am - 12:20 pm	<b>Aephraim M. Steinberg</b> (University of Toronto) "Identifying and managing decoherence and loss, from photons to optical lattices"
12:20 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	<u>Poster Session</u>
6:00 pm	Dinner
7:30 pm - 9:30 pm	<b>CONTROL OF ATOMS AND MOLECULES</b>
7:30 pm - 7:50 pm	Discussion Leader: <b>Marcus Motzkus</b> (Universitat Heidelberg) "Treating Complex Quantum Systems with Shaped Laser Pulses"
7:50 pm - 8:30 pm	<b>Th. Baumert</b> (University of Kassel) "Ultrafast Laser Control of Ionization on Prototypes and Corresponding Perspectives"
8:30 pm - 8:40 pm	Discussion
8:40 pm - 9:20 pm	<b>David Tannor</b> (Weizmann Institute, Rehovot) "Quantum Control of Chemical Reactions and Multi-electron Dynamics"
9:20 pm - 9:30 pm	Discussion
<b>WEDNESDAY</b>	
7:30 am - 8:30 am	Breakfast
9:00 am - 12:30 pm	<b>ATOSECONDS</b>
9:00 am - 9:20 am	Discussion Leader: <b>Philip Bucksbaum</b> (Stanford Linear Accelerator Center)
9:20 am - 9:50 am	<b>Paul Corkum</b> (NRC, Canada)

- "Coherent control in high harmonic and attosecond Pulse generation"
- 9:50 am - 10:00 am Discussion
- 10:00 am - 10:30 am Coffee Break
- 10:30 am - 11:00 am **Lorenz Cederbaum** (University of Heidelberg)  
"Intermolecular Coulombic Delay and Ultrafast Energy Transfer"
- 11:00 am - 11:10 am Discussion
- 11:10 am - 11:40 am **Henry C. Kapteyn** (University of Colorado)  
"Coherent control in the VUV/EUV, and Attosecond science for x-ray generation"
- 11:40 am - 11:50 am Discussion
- 11:50 am - 12:20 pm **Yukiyoshi Ohtsuki** (Tohoku University, Sendai)  
"Application of Nonresonant Optimal Control Simulation to Molecular Alignment / Orientation"
- 12:20 pm - 12:30 pm Discussion
- 12:30 pm Lunch
- 1:30 pm - 6:00 pm Free Time
- 6:00 pm Dinner
- 7:00 pm - 7:30 pm Business Meeting  
*Nominations for the next Vice Chair; Fill out Conference Evaluation Forms; Discuss future Site & Scheduling preferences; Election of the next Vice Chair*
- 7:30 pm - 9:30 pm **STRONG FIELD CONTROL**
- 7:30 pm - 7:50 pm Discussion Leader: **Herschel Rabitz** (Princeton University)  
"A Perspective on the Quantum Control Road Ahead"
- 7:50 pm - 8:30 pm **Albert Stolow** (National Research Council, Ottawa)  
"Molecules in intermediate to strong laser fields"
- 8:30 pm - 8:40 pm Discussion
- 8:40 pm - 9:20 pm **Louis F. DiMauro** (Ohio State University)  
"Scaling of Intense Laser-Atom Interactions"
- 9:20 pm - 9:30 pm Discussion

## THURSDAY

- 7:30 am - 8:30 am Breakfast
- 9:00 am - 12:30 pm **CONTROL OF COMPLEX SYSTEMS**
- 9:00 am - 9:20 am Discussion Leader: **Sanford Ruhman** (Hebrew University, Jerusalem)
- 9:30 am - 10:00 am **Chris Middleton** (University of Wisconsin)  
"Using mid-IR Pulse Shaping and Quantum Control to Optimize 2D IR Spectroscopy"
- 10:00 am - 10:30 am Coffee Break
- 10:30 am - 11:00 am **Jennifer Herek** (University of Twente, The Netherlands)

	"Optimal Control CARS Spectroscopy and Imaging"
11:00 am - 11:10 am	Discussion
11:10 am - 11:40 am	<b>Peter Hommelhoff</b> (Garching) "Light-Field Control of Electrons Emitted from a Nanometric Metal Tip"
11:40 am - 11:50 am	Discussion
11:50 am - 12:20 pm	<b>Vinod Kumarappan</b> (Kansas State University) "Laser-induced alignment of asymmetric top molecules"
12:20 pm - 12:30 pm	Discussion
12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	<u>Poster Session</u>
6:00 pm	Dinner
7:30 pm - 9:30 pm	<b>CONTROL AND QUANTUM INFORMATION</b>
7:30 pm - 7:50 pm	Discussion Leader: <b>Lorenza Viola</b> (Dartmouth College, New Hampshire)
7:50 pm - 8:30 pm	<b>Birgitta Whaley</b> (UCAL, Berkeley) "Quantum Control of Light Harvesting"
8:30 pm - 8:40 pm	Discussion
8:40 pm - 9:20 pm	<b>Joshua Combes</b> (Dept of Physics & Astron., University of New Mexico) "Extracting information from quantum systems using Measurement and feedback control"
9:20 pm - 9:30 pm	Discussion
<b>FRIDAY</b>	
7:30 am - 8:30 am	Breakfast
9:00 am	Departure

**Quantum Control of Light & Matter (2011)**

<b>Name</b>	<b>Organization</b>	<b>Participation</b>	<b>Status</b>
<b>ALLISON, THOMAS K</b>	JILA, NIST AND THE U. OF COLORADO AT BOULDER	Poster Presenter	Registered
<b>AM-SHALLEM, MORAG</b>	THE HEBREW UNIVERSITY OF JERUSALEM	Poster Presenter	Registered
<b>AMANKONA-DIAWUO, FELIX K</b>	NORTHWESTERN UNIVERSITY	Poster Presenter	Registered
<b>AMARAN, SAIESWARI</b>	HEBREW UNIVERSITY	Poster Presenter	Registered
<b>AMITAY, ZOHAR</b>	TECHNION - ISRAEL INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
<b>AVISAR, DAVID</b>	WEIZMANN INSTITUTE OF SCIENCE	Poster Presenter	Registered
<b>BAUMERT, THOMAS G</b>	UNIVERSITY OF KASSEL	Speaker	Registered
<b>BOSCAIN, UGO</b>	CMAP, ECOLE POLYTECHNIQUE CNRS	Speaker	Registered
<b>BRAUN, HENDRIKE</b>	UNIVERSITÄT KASSEL	Poster Presenter	Registered
<b>BRIF, CONSTANTIN</b>	SANDIA NATIONAL LABORATORIES	Poster Presenter	Registered
<b>BRINKS, DAAN</b>	ICFO - INSITUTE OF PHOTONIC SCIENCES	Poster Presenter	Registered
<b>BRIXNER, TOBIAS</b>	UNIVERSITY OF WUERZBURG	Poster Presenter	Registered
<b>BRUMER, PAUL W</b>	UNIVERSITY OF TORONTO	Discussion Leader	Registered
<b>BUCKSBAUM, PHILIP H</b>	STANFORD LINEAR ACCELERATOR CENTER	Discussion Leader	Registered
<b>CARINI, JENNIFER L</b>	UNIVERSITY OF CONNECTICUT	Attendee	Registered
<b>CEDERBAUM, LORENZ S.</b>	UNIVERSITÄT HEIDELBERG	Speaker	Registered
<b>CHATEL, BEATRICE</b>	CNRS-UNIVERSITY OF TOULOUSE	Speaker	Registered
<b>COLLINS, THOMAS A</b>	STEVENS INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
<b>COMBES, JOSHUA</b>	THE CENTER FOR QUANTUM INFORMATION AND CONTROL	Speaker	Registered
<b>CORKUM, PAUL</b>	NATIONAL RESEARCH COUNCIL OF CANADA	Speaker	Registered
<b>DIMAURO, LOUIS F</b>	OHIO STATE UNIVERSITY	Speaker	Registered
<b>DIMITRIJEVIC, JELENA</b>	UNIVERSITY OF BELGRADE	Poster Presenter	Registered
<b>EILAM, ASAF</b>	UNIVERSITY OF BRITISH COLUMBIA	Poster Presenter	Registered
<b>EITAN, REUVEN</b>	WEIZMANN INSTITUTE OF SCIENCE	Poster Presenter	Registered
<b>FRUMKER, EVGENY EUGENE</b>	NRC UOTTAWA	Poster Presenter	Registered

<b>GEBREMEDHIN, DANIEL H</b>	FLORIDA A & M UNIVERSITY	Poster Presenter	Registered
<b>GEISSLER, DOMINIK</b>	SUNY STONY BROOK	Poster Presenter	Registered
<b>GINOSSAR, ERAN</b>	YALE UNIVERSITY	Poster Presenter	Registered
<b>GOTO, HARUKA</b>	INSTITUTE FOR MOLECULAR SCIENCE	Poster Presenter	Registered
<b>GOULD, PHILLIP L</b>	UNIVERSITY OF CONNECTICUT	Speaker	Registered
<b>GRACE, MATTHEW D</b>	SANDIA NATIONAL LABORATORIES	Attendee	Registered
<b>GREENMAN, LOREN</b>	UNIVERSITY OF CALIFORNIA BERKELEY	Poster Presenter	Registered
<b>GRINEV, TIMUR</b>	UNIVERSITY OF TORONTO	Poster Presenter	Registered
<b>GUPTA, ASHISH K</b>	IIT GUWAHATI	Poster Presenter	Registered
<b>HAN, ALEX CHAO</b>	THE UNIVERSITY OF BRITISH COLUMBIA	Poster Presenter	Registered
<b>HEREK, JENNIFER L.</b>	UNIVERSITY OF TWENTE	Speaker	Registered
<b>HOCKER, DAVID L</b>	PRINCETON UNIVERSITY	Attendee	Registered
<b>HOMMELHOFF, PETER</b>	MAX-PLANCK-INST. FOR QUANTUM OPTICS	Speaker	Registered
<b>HORTON, SPENCER L</b>	STEVENS INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
<b>JANG, HYOUNGUK</b>	UNIVERSITY OF MARYLAND	Poster Presenter	Registered
<b>KALITA, DHRUBA J</b>	INDIAN INSTITUTE OF TECHNOLOGY, GUWAHATI	Poster Presenter	Registered
<b>KALLUSH, SHIMSHON</b>	ORT BRAUDE COLLEGE	Poster Presenter	Registered
<b>KATZ, GIL</b>	HEBREW UNIVERSITY	Poster Presenter	Registered
<b>KATZ, NADAV</b>	HEBREW UNIVERSITY OF JERUSALEM	Speaker	Registered
<b>KHODJASTEH, KAVEH</b>	DARTMOUTH COLLEGE	Poster Presenter	Registered
<b>KONAR, ARKAPRABHA</b>	MICHIGAN STATE UNIVERSITY	Poster Presenter	Registered
<b>KOSLOFF, RONALD B</b>	HEBREW UNIVERSITY JERUSALEM	Chair	Registered
<b>KOTUR, MARIJA</b>	STONY BROOK UNIVERSITY	Poster Presenter	Registered
<b>KUMARAPPAN, VINOD</b>	KANSAS STATE UNIVERSITY	Speaker	Registered
<b>LAFORGE, FRANCOIS O</b>	CHEMISTRY DEPT. PRINCETON UNIVERSITY	Poster Presenter	Registered
<b>LEHMANN, STEFAN CS</b>	VRIJE UNIVERSITEIT AMSTERDAM	Poster Presenter	Registered
<b>LEVIS, ROBERT J</b>	TEMPLE UNIVERSITY	Speaker	Registered
<b>LI, HEBIN</b>	JILA	Poster Presenter	Registered



<b>LI, XUAN</b>	UNIVERSITY OF BRITISH COLUMBIA	Poster Presenter	Registered
<b>LIM, JONGSEOK</b>	KAIST	Poster Presenter	Registered
<b>LONG, RUIXING</b>	PRINCETON UNIVERSITY	Poster Presenter	Registered
<b>LUKIN, MIKHAIL</b>	HARVARD UNIVERSITY	Discussion Leader	Registered
<b>MABUCHI, HIDEO</b>	STANFORD UNIVERSITY	Speaker	Registered
<b>MACHNES, SHAI</b>	ULM UNIVERSITY	Poster Presenter	Registered
<b>MALINOVSKAYA, SVETLANA</b>	STEVENS INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
<b>MALINOVSKY, VLADIMIR</b>	STEVENS INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
<b>MAO, XIANGLEI</b>	LAWRENCE BERKELEY NATIONAL LABORATORY	Attendee	Registered
<b>MARKMANN, ANDREAS</b>	YALE UNIVERSITY	Poster Presenter	Registered
<b>MATHUR, ANSHU B</b>	UNIVERSITY OF TEXAS M.D. ANDERSON CANCER CENTER	Attendee	Registered
<b>MEIER, ADAM M</b>	NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY	Poster Presenter	Registered
<b>MIDDLETON, CHRIS T</b>	UNIVERSITY OF WISCONSIN-MADISON	Speaker	Registered
<b>MOTZKUS, MARCUS A</b>	UNIVERSITAT HEIDELBERG	Discussion Leader	Registered
<b>MURNANE, MARGARET M</b>	UNIVERSITY OF COLORADO	Attendee	Registered
<b>NIELSEN, NIELS C</b>	UNIVERSITY OF AARHUS	Speaker	Registered
<b>ODHNER, JOHANAN</b>	TEMPLE UNIVERSITY	Poster Presenter	Registered
<b>OHMORI, KENJI</b>	INSTITUTE FOR MOLECULAR SCIENCE	Discussion Leader	Registered
<b>OHTSUKI, YUKIYOSHI</b>	TOHOKU UNIVERSITY	Speaker	Registered
<b>PACHON, LEONARDO A</b>	UNIVERSITY OF TORONTO	Poster Presenter	Registered
<b>PARKER, SHANE M</b>	NORTHWESTERN UNIVERSITY	Poster Presenter	Registered
<b>PICON ALVAREZ, ANTONIO</b>	JILA, UNIVERSITY OF COLORADO AT BOULDER	Poster Presenter	Registered
<b>PRIOR, YEHIAM</b>	WEIZMANN INSTITUTE OF SCIENCE	Poster Presenter	Registered
<b>RABITZ, HERSCHEL</b>	PRINCETON UNIVERSITY	Discussion Leader	Registered
<b>RAITH, PHILIPP</b>	MAX-PLANCK-INSTITUT FUR KERNPHYSIK	Poster Presenter	Registered
<b>RANGAN, CHITRA</b>	UNIVERSITY OF WINDSOR	Poster Presenter	Registered

<b>REICH, DANIEL</b>	UNIVERSITAT KASSEL	Poster Presenter	Registered
<b>REN, XIAOMING</b>	KANSAS STATE UNIVERISTY	Poster Presenter	Registered
<b>RENAUD, NICOLAS</b>	NORTHWESTERN.EDU	Attendee	Registered
<b>RIOFRIO, CARLOS A</b>	UNIVERSITY OF NEW MEXICO	Poster Presenter	Registered
<b>ROGERS, CHARLES E</b>	UNIVERSITY OF CONNECTICUT	Attendee	Registered
<b>ROMANOV, DMITRI A</b>	TEMPLE UNIVERSITY	Poster Presenter	Registered
<b>RUHMAN, SANFORD</b>	HEBREW UNIVERSITY	Discussion Leader	Registered
<b>RUPNIK, KRESIMIR</b>	LOUSIANA STATE UNIVERSITY	Poster Presenter	Registered
<b>SCHOLAK, TORSTEN</b>	UNIVERSITY OF TORONTO	Poster Presenter	Registered
<b>SENSION, ROSEANNE J</b>	UNIVERSITY OF MICHIGAN	Poster Presenter	Registered
<b>SHAH, JAY D</b>	MICHIGAN STATE UNIVERSITY	Poster Presenter	Registered
<b>SHAPIRO, MOSHE</b>	UNIVERSITY OF BRITISH COLUMBIA	Speaker	Registered
<b>SILBERBERG, YARON</b>	WEIZMANN INSTITUTE OF SCIENCE	Speaker	Registered
<b>SONNTAG, MATTHEW D</b>	NORTHWESTERN UNIVERSITY	Poster Presenter	Registered
<b>SPECTOR, LIMOR S</b>	STANFORD UNIVERSITY	Poster Presenter	Registered
<b>STEINBERG, AEPHRAIM M</b>	UNIVERSITY OF TORONTO	Speaker	Registered
<b>STOLOW, ALBERT</b>	NATIONAL RESEARCH COUNCIL CANADA	Speaker	Registered
<b>SU, JING</b>	UNIVERSITY OF COLORADO AT BOULDER	Poster Presenter	Registered
<b>SUGNY, DOMINIQUE</b>	ICB	Speaker	Registered
<b>SUN, LUYAN</b>	YALE UNIVERSITY	Attendee	Registered
<b>TAKEI, NOBUYUKI</b>	INSTITUTE FOR MOLECULAR SCIENCE	Poster Presenter	Registered
<b>TAKEMOTO, NORIO</b>	DEPARTMENT OF CHEMICAL PHYSICS, WEIZMANN INSTITUTE	Poster Presenter	Registered
<b>TANNOR, DAVID</b>	WEIZMANN INSTITUTE	Speaker	Registered
<b>THANOPULOS, IOANNIS</b>	NATIONAL HELLENIC RESEARCH FOUNDATION	Poster Presenter	Registered
<b>TRALLERO, CARLOS A</b>	JAMES R. MACDONALD	Poster Presenter	Registered
<b>URSREY, DUSTIN R</b>	KANSAS STATE UNIVERSITY	Poster Presenter	Registered
<b>VAN RHIJN, ALEXANDER CW</b>	UNIVERSITY OF TWENTE	Poster Presenter	Registered
<b>VINJANAMPATHY, SAI</b>	UNIVERSITY OF MASSACHUSETTS,	Poster	Registered

	BOSTON	Presenter	
<b>VIOLA, LORENZA</b>	DARTMOUTH COLLEGE	Discussion Leader	Registered
<b>WANG, XIAOTING</b>	UMASS BOSTON	Poster Presenter	Registered
<b>WANG, JIN</b>	UNIVERSITY OF MICHIGAN	Poster Presenter	Registered
<b>WEATHERFORD, CHARLES A</b>	CENTER FOR PLASMA SCIENCE AND TECHNOLOGY	Poster Presenter	Registered
<b>WEIDEMUELLER, MATTHIAS</b>	UNIVERSITAET HEIDELBERG	Discussion Leader	Registered
<b>WEINACHT, THOMAS C</b>	STONY BROOK UNIVERSITY	Vice Chair	Registered
<b>WHALEY, K. BIRGITTA</b>	UNIVERSITY OF CALIFORNIA, BERKELEY	Speaker	Registered
<b>YANG, HUAN</b>	CALIFORNIA INSTITUTE OF TECHNOLOGY	Poster Presenter	Registered
<b>YE, JUN</b>	JILA/NIST AND UNIVERSITY OF COLORADO	Speaker	Registered
<b>YOUNG, KEVIN C</b>	SANDIA NATIONAL LABORATORIES	Poster Presenter	Registered
<b>YUAN, HAIDONG</b>	HARVARD UNIVERSITY	Attendee	Registered
<b>ZOHRABI, MOHAMMAD</b>	KANSAS STATE UNIVERSITY	Poster Presenter	Registered

**119 Attendees**