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Happy summer to all!

We hope everyone had a successful conclusion to the academic year. This spring was a busy semester for the CUA. We hosted both the Advisory Committee and Visiting Committee, in preparation for a renewal phase. Both events were highly successful.

We hope you get out of the ultracold labs to enjoy the hot summer weather!

## **CUA and Scientific Community Events**

## Glauber Symposium

On Saturday, December 12th, a special symposium was held at Harvard in honor of Roy Glauber's 90th birthday.

The symposium brought together several of the pioneers in the field of Quantum Optics to present some of the latest developments in the field.

Support for the symposium was given by:

Dean of Science of the Harvard Faculty of Arts and Sciences

Harvard Quantum Optics Center

Harvard/MIT Center for Ultracold Atoms

Harvard Smithsonian Center for Astrophysics

Institute for Theoretical Atomic, Molecular and Optical Physics

Saturday  
December 12, 2015, 1:30 PM  
Center for Astrophysics, Phillips Auditorium  
Harvard University

# GLAUBER 90th

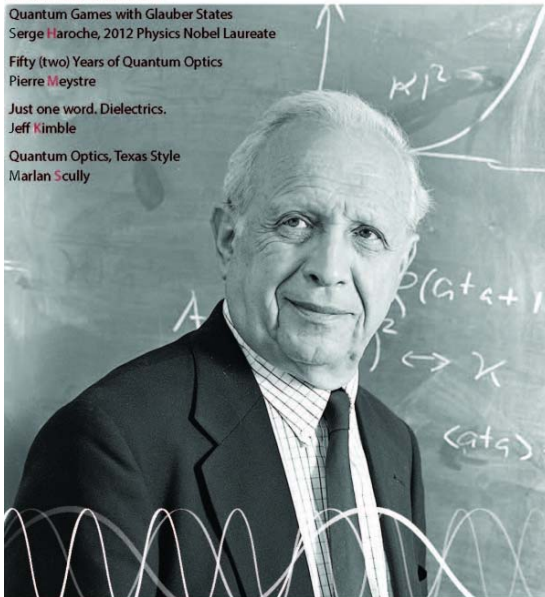
FEATURED SPEAKERS

Quantum Games with Glauber States  
Serge Haroche, 2012 Physics Nobel Laureate

Fifty (two) Years of Quantum Optics  
Pierre Meystre

Just one word, Dielectrics.  
Jeff Kimble

Quantum Optics, Texas Style  
Marlan Scully




## CUA Retreat

In early January, the CUA once again put on a successful Retreat at the Common Man Inn in Plymouth, NH.

The format included a full schedule of scientific talks, poster sessions, as well as some time for a community Nordic ski trip at Waterville Valley.



### **DAMOP**

CUA faculty organized a billiards event for the scientific community attending DAMOP in Providence. It was well attended and well enjoyed!

After DAMOP concluded, the CUA hosted lab tours for the AMO community at both MIT and Harvard.



### **Z3 Ribbon Cutting and Reception**

On Thursday, May 19th, RLE hosted a ribbon cutting reception for Martin Zwierlein's brand new lab space at MIT.

## **CUA Community News**



## New Improved CUA Wiki at MIT

Spearheaded by Boris Braverman and Jesse Amato-Grill, the CUA is putting a dedicated effort into revamping its Wiki. Now hosted in the main MIT wiki space, the Wiki contains articles on many areas of interest in the CUA.

The first Wiki Edit-a-thons have been very successful, and there will be more such events in the future. These events are starting out at MIT, but will open up to Harvard folks in the future. The Wiki is shaping up to be a great resource for current and future CUAers.



## NSSEFF Fellowship

Hongkun Park and Wolfgang Ketterle have been chosen as two of the 2016 class of National Security Science and Engineering Faculty Fellows, as announced in this [press release](#).

With Misha Lukin, who won such a fellowship in 2015, three of the 32 current fellows are part of the CUA.

The Ketterle group will be forming a new lab, which will begin this fall. The Park group will leverage the funding to start new research programs aimed at realizing solid-state quantum optics experimental platforms. The scientific agenda of their NSSEFF effort, as well as the new experimental capabilities afforded by it, will be synergistically coupled to ongoing CUA efforts, thus opening new vistas.

## CUA Visitors

This spring semester, the CUA had a record number of longer-term visitors. We hope you got a chance to work with them as well as greet and welcome them to the Center.



**Vladimir Shalaev**

Bob and Anne Burnett Distinguished  
Professor in Electrical and Computer  
Engineering

Purdue University



**Sasha Boltasseva**

Associate Professor

Purdue University



**Jeroen van den Brink**

Director of the Institute for Theoretical  
Solid State Physics, IFW Dresden

Professor of Theoretical Condensed Matter  
Physics, Department of Physics, TU  
Dresden

**Fernando Sols**

Professor of Condensed Matter Physics at the Universidad Complutense de Madrid

**Zoran Hadzibabic**

Professor of Physics, University of Cambridge

**Mohit Randeria**

Professor, Department of Physics  
Ohio State University



### Professor Tilman Pfau

Universität Stuttgart

Tilman is the only CUA-sponsored visitor currently here. He is visiting through the end of July.

## Outreach



### Massachusetts Regional Middle School Science Bowl

On Saturday, January 23, 2016, Harry Levine (Lukin), Nick Hutzler (Ni), and Eric Tai (Greiner) volunteered at the Massachusetts Regional Middle School Science Bowl.

### MITx

On Monday, May 23rd, Isaac Chuang, Professor of Physics, Professor of Electrical Engineering, and Senior Associate Director of [Digital Learning at MIT](#), spoke at Harvard's Real Colegio Comlutense on MITx and HarvardX.

#### Abstract:

Three years of data from over 168 open online courses, accessed by over 3 million participants, complemented by dozens of on-campus courses, taken by thousands of residential students, provide rich perspective into how far MITx and HarvardX have progressed towards goals of advancing access, research, and residential education.





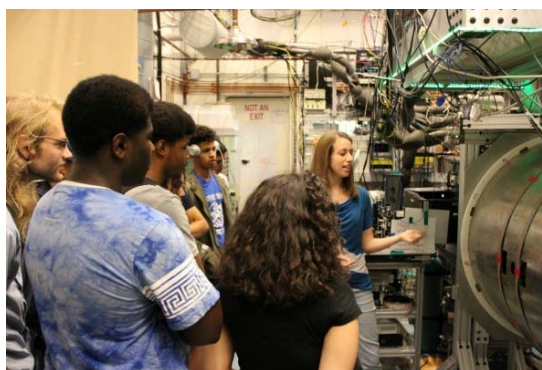
## MIT Open House

The CUA offered its well-attended Kids Day event again this year, this time in conjunction with the MIT Open House. The Open House celebrated 100 years of MIT in Cambridge and featured a wide variety of events.

To read more about the Open House and see pictures and video of the event, click [here](#).

## Cambridge Rindge and Latin Lab Tours

A group of local middle schoolers from Cambridge Rindge and Latin visited the Harvard CUA for interactive lab tours as part of the Cambridge Harvard Summer Academy. The event this July was spearheaded by Elizabeth Petrik West from the Doyle group.



## Science on Saturday

Produced by MIT alumnus Todd Rider, and sponsored by the MIT Museum and the Akamai Foundation, Science on Saturday is a free, 60-minute presentation with fun demonstrations in which students can volunteer. Each Saturday morning program is open to all elementary, middle, and high school students, as well as their parents and teachers.

The Cappellaro group presented the “magical” properties of defects in diamond with live-action creations of defects (and hand-on demos).

See more at [MIT News](#), and see a clip of the presentation [here](#).



## Conference Support

The CUA will be supporting the 2016 Quantum Science Gordon Research Conference, which will be held at Stonehill College in Easton, Massachusetts.

The CUA is also supporting the ICAP Summer School 2016, which is being held in Seoul, Republic of Korea.

Professor Ketterle is one of the main speakers for this year's Summer School.

# ICAP 2016

The 25th International Conference on Atomic Physics



## TOPS Program 2016

The TOPS Program has once again welcomed its student teachers from around the country. The middle school program has already successfully concluded and the two-week high school program began this week. The program is designed to address the need for physics teachers in the United States and seeks to bolster their interest and confidence in teaching Physics.

Led by master teachers James Formato, Don Donovan, Matty Anderson, and Jamison Smith, this year's participants come from the University of Vermont, Harvey Mudd, Vassar, Tufts, Rensselaer, Princeton, Haverford College, University of Chicago, and the TOPS staff assistant hails from Bowdoin.

## Awards

In 2015, **Kang-Kuen Ni** received the Arnold and Mabel Beckman Young Investigator Award as well as the AFOSR Young Investigator Award.



As always, if you have any news or events you think should be included in the next CUA Newsletter, please email them to [j\\_k@mit.edu](mailto:j_k@mit.edu).

This email has been sent to [j\\_k@mit.edu](mailto:j_k@mit.edu), [click here to unsubscribe](#).

