

ITAMP News

Harvard-Smithsonian Center for Astrophysics
itamp.harvard.edu

FALL 2017

Workshops, Topical Groups, & Schools

Frontiers of Interacting Systems of Rydberg Atoms

Ahmed Omran (Harvard University), *Hannes Bernien* (Harvard), *Hannes Pichler* (ITAMP), *Mikhail Lukin* (Harvard).

June 1-2, 2017

Charge Impurities in Cold Atomic and Molecular Systems

Svetlana Kotochigova (NIST & Temple University), *Tommaso Calarco* (Ulm University)

July 19-21, 2017

Quantum Impurities in Atomic, Condensed-Matter and Chemical Systems

Mikhail Lemeshko (IST, Austria), *Andrey Vilesov* (USC), *Richard Schmidt* (ITAMP), *Kang-Kuen Ni* (Harvard).

August 16-18, 2017

Many-Body Cavity QED

Dan Stamper-Kurn (Berkeley), *Murray Holland* (JILA) and *Benjamin Lev* (Stanford)

October 9-11, 2017

Quantum Thermodynamics

Ronnie Kosloff (Hebrew Univ.) and *Ferdinand Schmidt-Kaler* (Mainz)

October 30 to November 1, 2017

ITAMP/B2 Institute Winter Graduate School on AMO Physics, “Quantum Metrology”

University of Arizona- Biosphere 2
February 18-24, 2018

ITAMP 2018 Postdoctoral Fellowship application will open in September 2017.

www.cfa.harvard.edu/itamp/postdoctoral.html

ITAMP has a new website!

We're excited to announce the release of a new website for ITAMP; let's call it ITAMP 2.0! This is the first time that the information, accumulated over several decades, i. e. workshop abstracts, programs, presentations, visitors, postdocs, students and winter school lectures, are organized in an intuitive manner under one banner. We invite the community to peruse the website and send us feedback. It will be greatly appreciated.

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Call for proposals.
You can propose workshops, topical groups, ideas for the winter schools and requests for visits to ITAMP at
itamp.harvard.edu



**SEND YOUR STUDENTS TO THE
ITAMP/B2 INSTITUTE
2018 WINTER SCHOOL!**

The ITAMP/B2 Institute Winter Graduate School in AMO Physics on “Quantum Metrology”, will be held on the Biosphere Campus near Tucson, Arizona from February 18-24, 2018.

Visit:

www.cfa.harvard.edu/itamp/WinterSchool2018.html

2017 Postdoctoral Fellow



ITAMP Welcomes the 2017 edition of postdoctoral fellows. **Dr. Bihui Zhu** will join ITAMP as the 2018 postdoctoral fellow in the Fall. She graduated from JILA under the supervision of Ana Maria Rey, herself an ITAMP alumnus.

Bihui worked on several aspects of non-equilibrium dynamics in dissipative atomic and molecular systems, including reaching quantum degeneracy and collective behavior of quantum radiators. We are happy that she's accepted to come to ITAMP.

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High-School Student Outreach



Students In holography lab

In collaboration with the Johns Hopkins University Center for Talented Youth (CTY), ITAMP hosted a large group of high school students and parents on Saturday, October 1, 2016.

The AMO community at ITAMP, Harvard Physics, and MIT, as well as members of the CfA, all teamed up for lectures, demonstrations, and lab visits.

Thanks go to Markus Greiner (Harvard), Marie Aline Martin (CfA), Paola Cappellaro (MIT), Henry "Trae" Winter III (CfA), and Benjamin Augenbraun (Harvard) for lectures, and to ITAMP fellows for time spent in discussions with the visitors. We are especially grateful to Markus Greiner for directing a hands-on holography lab.

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ITAMP Co-Sponsors CUWiP and SPIN UP

The Conference for Undergraduate Women in Physics (CUWiP) is a network of nine simultaneous conferences held across the US that aims to increase the representation of women in physics. Harvard hosted one of the conferences in January 2017 along with a preceding workshop SPIN UP (Supporting Inclusion of Underrepresented Peoples).

ITAMP continues to offer videos from workshops and the Winter Schools on YouTube. Videos can be found by searching for "ITAMP/Physics" at youtube.com.



The next set of **Dalgarno lectures** will be given in the Spring 2018 by Prof. Ewine van Dishoeck of Leiden University and Max-Planck-Institut für Extraterrestrische Physik. Her research focuses on physics and chemistry of star and planet

formation, laboratory astrochemistry, and theoretical chemistry. She was a student of Alex Dalgarno at Harvard.

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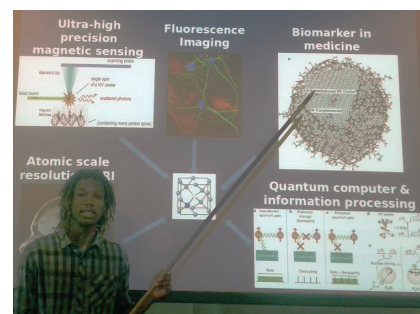
Underrepresented Tandem Faculty/Student Visitors

In the summer of 2016, ITAMP initiated a program facilitating joint visits by a faculty member and students from a historically underrepresented college or university.

Prof Deborah

Santamore from Delaware State University, and her students, Mr. Dontray Dowdell and Mr. Arthur Newell, visited. Their research concerning surface effects on nitrogen vacancy center neutralization benefited from collaboration with local groups working on diamond NV systems and interactions with ITAMP members. This work was published in *J. App. Phys.*

The 2017 faculty fellow is Prof. Zinab Felfeli of Clark Atlanta University.



Dontray Dowdell presenting his research

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Contact the ITAMP Coordinator **Naomi Tariri** for information and questions at ntariri@cfa.harvard.edu

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