

B quantificated

the program

Inauguration Ceremony
of the
Max Planck Harvard
Research Center
for Quantum Optics

Post-Doc Day MPHQ
11th of January 2018
Institute for Advanced Study



B quantificated PROGRAM

14.00h – 14.05h

Program Opening

14.05h – 14.30h

Dr. Fabian Grusdt (Harvard)
*Meson theory of magnetic polarons
in hole-doped anti-ferromagnets*

14.30h – 14.55h

Dr. Johannes Zeiher (MPQ)
*Coherent dynamics in Rydberg-dressed
spin systems*

14.55h – 15.20h

Dr. Daniel Greif (Harvard)
*New frontiers in fermionic quantum gas
microscopy*

15.20h – 15.55h

Dr. Erez Zohar (MPQ)
*Gauge Symmetries with Cold Atoms
and PEPS: Quantum Simulation
and Tensor Network Studies of Lattice
Gauge Theories*

15.55h – 16.30h

Coffee Break

16.30h – 16.55h

Dr. Ephraim Shahmoon (Harvard)
*Optomechanical response of a
two-dimensional atomic array*

16.55h – 17.20h

Dr. Olivier Morin (MPQ)
*Coherence protection of a photonic-qubit
memory*

17.20h – 17.45h

Dr. Lawrence Cheuk (Harvard)
*Laser Cooling and Optical Trapping
of CaF Molecules*

17.45h – 18.10h

Dr. Renate Landig (Harvard)
*Time crystals in strongly interacting
dipolar spin systems*

18.10h – 20.00h

Poster session



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Inauguration Ceremony
of the
Max Planck Harvard
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for Quantum Optics

Inauguration Day
12th of January 2018
Deutsches Museum



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PROGRAM

09.00h - 09.30h

Registration

09.30h – 09.40h

Opening MPHQ Inauguration Day

Prof. Gerhard Rempe

Prof. Wolfgang Heckl

09.40h – 10.20h

Prof. Mikhail Lukin (Harvard)

Exploring new frontiers of quantum science with past, present and future Harvard-MPQ collaboration

10.20h – 11.00h

Prof. Immanuel Bloch (MPQ)

Large scale quantum simulations using ultracold atoms in optical lattices

11.00h – 11.20h Coffee break

11.20h – 12.00h

Prof. Kang-Kuen Ni (Harvard)

Fun with two atoms – a tale of collisions and reactions

12.00h – 12.40h

Prof. Ignacio Cirac (MPQ)

Theoretical frontiers in quantum optics and quantum information

12.40h – 13.20h

Prof. Rainer Blatt (Scientific Advisory Board)

Quantum computations and quantum simulations with trapped ions

13.20h – 14.00h

Lunch

14.00h – 14.45h

Prof. Wolfgang Ketterle (Nobel laureate)

New forms of matter with ultracold atoms: superfluids and supersolids

14.45h – 15.15h

Official MPHQ Opening Ceremony

Prof. Gerhard Rempe (Director MPHQ)

Prof. Martin Stratmann (President of the MPG)

Prof. Jeremy Bloxham (Dean of Science Harvard)

15.15h – 16.00h

Prof. John Doyle (Harvard)

Probing the frontiers of particle physics using quantum sensors

16.00h – 16.30h

Coffee break

16.30h – 16.45h

Dr. Johannes-Geert Hagmann

(Deutsches Museum)

Optics and quantum optics at the Deutsche Museum

16.45h – 17.45h

Experimental talk by Prof. Markus Greiner (Harvard)

Quantum Lego: from single atoms to quantum computing

17.45h – 18.00h

Closing remarks & Scientific wrap-up

Prof. Gerhard Rempe

