

INT Workshop INT 17-66W

Quantum Computing for Nuclear Physics

November 14-15, 2017

ALL TALKS WILL BE HELD IN THE SEMINAR ROOM, C520, UNLESS STATED OTHERWISE

Tuesday, November 14, 2017

8:00 AM Registration, 4th floor, room C411

9:00 AM Welcome
David Kaplan, INT Senior Fellow

9:10 AM Introductory Remarks
David Dean, Martin Savage

9:30 AM "Quantum Computing and Quantum Information"
John Preskill, Caltech

10:00 AM "Quantum Computing Systems – expectations"
Dave Wecker, Microsoft

10:30 AM Coffee Break

11:00 AM "Quantum Computing Systems – expectations"
Dave Bacon, Google

11:30 AM "Quantum Computing Systems – expectations"
Jiehang Zhang, University of Maryland

12:00 PM "Quantum Computing Algorithms for Many-body Systems"
Matthias Troyer, Microsoft

12:30 PM Lunch Break

2:00 PM "Quantum Computing at National Laboratories"
Karol Kowalski, Pacific Northwest National Laboratory

2:30 PM "Quantum Computing - ASCR Perspective"
Ceren Susut-Bennett, U.S. Dept. of Energy

3:00 PM "Quantum Computing at National Laboratories – ORNL"
Pavel Lougovski, Oak Ridge National Laboratory

3:30 PM Coffee Break

4:00 PM "Quantum Computing for Nuclear Many-Body Systems"
David Dean, Oak Ridge National Laboratory

4:30 PM "Quantum Computing Quantum Field Theories for Nuclear Physics"
Martin Savage, Institute for Nuclear Theory

5:00 PM End of Day 1

Wednesday, November 15, 2017

9:00 AM "NP Computing in the Exascale Era"
Joe Carlson, Los Alamos National Laboratory

9:30 AM "Quantum Information and Hot Dense QCD"
Peter Petreczky, Brookhaven National Lab

10:00 AM "Quantum Information and Solid State Systems"
Kai-Mei Fu, University of Washington

10:30 AM Coffee Break

11:00 AM "Classical Computing Quantum Computing Interface for Nuclear Physics"
Ken Roche, Pacific Northwest National Laboratory, Univ. of Washington

11:30 AM Open Discussion Session

12:30 PM Close of Meeting

2:30 PM Co-organizers/Drafters of Whitepaper gather to determine timelines and content

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