



MANAGED BY UT-BATTELLE FOR THE US DEPARTMENT OF ENERGY

## **QMCPack Users Workshop**

## Agenda as of (05/07/2019)

Event contact	Paul Kent 865-574-4845 (office); <u>kentpr@ornl.gov</u> Erica Valentine 865-576-3709 (office); <u>valentineem@ornl.gov</u>				
Time	Event	Lead	Place		
Tuesday May 14 <sup>th</sup> 2019					
7:30am	Badging at Visitors Center		Building: 5200		
8:00am	Welcome - Overview and introduction, Breakfast provided	Paul Kent	Building: 8600 Room: C-156		
8:30am	Set up Amazon Web Services	Paul Kent	Building: 8600 Room: C-156		
9:00am	Correlation Consistent Pseudopotentials	Cody Melton	Building: 8600 Room: C-156		
9:30am	Using PySCF for Molecules and Solids	Anouar Benali	Building: 8600 Room: C-156		
10:30am	Break		Building: 8600 Room: C-156		
11:00am	Auxiliary Field QMC part I	Miguel Morales	Building: 8600 Room: C-156		
12:00pm	Working Lunch - Engaging with the QMCPACK Project, Lunch provided	Paul Kent	Building: 8600 Room: C-156		
1:00pm	Auxiliary Field QMC part II	Miguel Morales	Building: 8600 Room: C-156		
2:00pm	Development of Forces in QMCPACK	Raymond Clay	Building: 8600 Room: C-156		
2:30pm	Invited user talk: "Quantum Monte Carlo from Benchmarking to Understanding Nanoscale Materials"	Kayahan Saritas	Building: 8600 Room: C-156		





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Time	Event	Lead	Place		
Tuesday May 14 <sup>th</sup> 2019					
3:00pm	Break		Building: 8600 Room: C-156		
3:30pm	Hands-on and discussion time	Paul Kent	Building: 8600 Room: C-156		
5:30pm	Reception and poster session	Paul Kent	8600 Corridor		

Wednesday May 15 <sup>th</sup> 2019				
8:00am	Recap of previous days sessions, Breakfast provided	Paul Kent	Building: 8600 Room: C-156	
8:30am	Selected CI Trial Wave Functions with Quantum Package and QMCPACK	Anouar Benali	Building: 8600 Room: C-156	
9:30am	Wavefunction Optimization Algorithms in QMCPACK	Luning Zhao	Building: 8600 Room: C-156	
10:15am	Break		Building: 8600 Room: C-156	
10:45am	NEXUS Workflow System	Jaron Krogel	Building: 8600 Room: C-156	
12:00pm	Working Lunch - Future Workshop and QMCPACK Development Plans, <i>Lunch provided</i>	Paul Kent	Building: 8600 Room: C-156	
1:00pm	Running Solids Efficiently at Large Scale	Ye Luo	Building: 8600 Room: C-156	
1:30pm	Invited user talk: "Compton Profile of Solid and Liquid Lithium from Quantum Monte Carlo"	Paul Yang	Building: 8600 Room: C-156	



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Wednesday May 15 <sup>th</sup> 2019				
2:00pm	Status of Spin in QMC	Lubos Mitas	Building: 8600 Room: C-156	
2:30pm	Hands-on and discussion time	Paul Kent	Building: 8600 Room: C-156	
3:00pm	Group Photo	Genevieve Martin	SNS Lobby	
3:15pm	Break		Building: 8600 Room: C-156	
3:30pm	Hands-on and discussion time	Paul Kent	Building: 8600 Room: C-156	
5:00pm	Wrap up	Paul Kent	Building: 8600 Room: C-156	

#### Attendees:

Abdulgani Annaberdiyev, North Carolina State University Alfredo Correa, Lawrence Livermore National Laboratory Alicia Welden, Lawrence Livermore National Laboratory Amanda Dumi, University of Pittsburgh Anh Pham, Oak Ridge National Laboratory Ankit Mahajan, University of Colorado Anouar Benali, Argonne National Laboratory Can Ataca University of Maryland Cancan Huang, Brown University Charles Peterson, University of North Texas Charles Rendleman, D.E. Shaw Research Cody Melton, North Carolina State University Daniel Wines, University of Maryland Federico Zahariev, Iowa State University / Ames National Laboratory Fernando Reboredo, Oak Ridge National Laboratory Fionn Malone, Lawrence Livermore National Laboratory Gewinner Senderanto Sinaga, Japan Advanced Institute of Science and Technology Guangming Wang, North Carolina State University Gwangyeong Lee, Konkuk University Hongxia Hao, Brown University Hyeondeok Shin, Argonne National Laboratory Iliya Sabzevari, The University of Colorado at Boulder Iuegyun Hong, Konkuk University Jaron Krogel, Oak Ridge National Laboratory Joshua Townsend, Sandia National Laboratory Kayahan Saritas, Oak Ridge National Laboratory Keishu Uchimura, Japan Advanced Institute of Science and

Kevin Gasperich, University of Pittsburgh Kevin Ly, University of Illinois Lubos Mitas, North Carolina State University Luke Shulenburger, Sandia National Laboratory Luning Zhao, University of California, Berkeley Mark Dewing, Argonne National Laboratory Miguel Morales, Lawrence Livermore National Laboratory P. Ganesh, Oak Ridge National Laboratory Paul Kent, Oak Ridge National Laboratory Raymond Clay, Sandia National Laboratory Ronald Cohen, Carnegie Institution Ryo Maezono, Japan Advanced Institute of Science and Technology Samuel Greene, University of Chicago Shiv Upadhyay, University of Pittsburgh Shuai Zhang, Lawrence Livermore National Laboratory Tomas Rojas Solorzano, Ohio University Tomohiro Ichiba, Argonne National Laboratory Ye Luo, Argonne National Laboratory Yubo Yang, University of Illinois

Technology Ken Qin, Japan Advanced Institute of Science and Technology Kenneth Jordan, University of Pittsburgh