

**Connecting Bound States to the Continuum  
Facility for Rare Isotope Beams (FRIB)  
June 11-22, 2018**

**AGENDA**

<b>Start</b>	<b>Duration</b>	<b>Agenda Item/Talk title</b>	<b>Speaker</b>
<b>Minday, 11 June 2018 - 1221B Conference Room</b>			
9:00 AM	0:20	REGISTRATION	
9:20 AM	0:10	Welcome + goals CHAIR: H. Hergert	LAUNEY, Kristina
9:30 AM	1:00	01 Overview (Reactions - th.)	NUNES, Filomena
10:30 AM	0:20	<i>Coffee Break</i>	
10:50 AM	0:50	02 Overview of bound-state many-body methods	JOHNSON, Calvin
11:40 AM	0:20	Discussion and announcements	
12:00 PM	1:30	<i>Lunch</i> CHAIR: A. Volya	
1:30 PM	0:45	03 "Complex-energy configuration interaction approach"	NAZAREWICZ, Witold
2:15 PM	0:45	Discussion of workshop goals and working group format	Lead: TBD
3:00 PM	0:20	<i>Coffee Break</i>	
3:20 PM	1:40	Discussion of important questions in scattering and reaction theory	Lead: TBD
5:00 PM			

**Tuesday, 12 June 2018 - 1221B Conference Room**

		CHAIR: M. Caprio	
9:00 AM	0:45	04 "Overview of microscopic R-matrix approaches"	QUAGLIONI, Sofia
9:45 AM	0:45	05 "Configuration interaction studies of nuclear clustering"	VOLYA, Alexander
10:30 AM	0:20	<i>Break</i>	
10:50 AM	0:45	06 "Correlated Reference States and Effective Hamiltonians in the IMSRG Framework"	HERGERT, Heiko
11:35 AM	0:20	Discussions	
11:55 AM	0:05	Announcements	
12:00 PM	1:30	<i>Lunch</i>	
1:30 PM	1:30	Topical discussions (working groups)	
3:00 PM	0:20	<i>Coffee Break</i>	
3:20 PM	1:40	Topical discussions (working groups)	
5:00 PM			



### Wed 13 June 2018 - 1221B Conference Room

*Chair: K. Fossez*

9:00 AM	0:45	07	"Spectroscopy of Continuum States - a review"	THOMPSON, Ian
9:45 AM	0:45	08	"Symmetry-adapted bases for ab initio structure and reaction theory"	MERCENNE, Alexis
10:30 AM	0:20		<i>Break</i>	
10:50 AM	0:45	09	Three-body approach to deuteron-nucleus scattering using realistic forces in a separable representation	HLOPHE, Linda
11:35 AM	0:20		Discussions	
11:55 AM	0:05		Announcements	
12:00 PM	1:30		<i>Lunch</i>	
1:30 PM	1:30		Topical discussions (working groups)	
3:00 PM	0:20		<i>Coffee break</i>	
3:20 PM	1:40		<i>Topical discussions (working groups)/FRIB tour</i>	
5:00 PM				
5:00 PM				

### Thu, 14 June 2018 - 1221B Conference Room

*CHAIR: S. Quaglioni*

9:00 AM	0:45	10	Single-State method within the HORSE (J-matrix) formalism	SHIROKOV, Andrey KRAVVARIS, Konstantinos
9:45 AM	0:45	11	Reactions with clusters in harmonic oscillator basis.	
10:30 AM	0:20		<i>Break</i>	
10:50 AM	0:45	12	"Symplectic no-core configuration interaction framework for ab initio nuclear structure"	CAPRIO, Mark
11:35 AM	0:20		Discussions	
11:55 AM	0:05		Announcements	
12:00 PM	1:30		<i>Lunch</i>	
			<i>CHAIR: L. Hlophe</i>	
1:30 PM	0:45	13	"Natural orbital methods for nuclear structure"	FASANO, Patrick
2:15 PM	0:45		Topical discussions (working groups)	
3:00 PM	0:20		<i>Coffee Break</i>	
3:20 PM	1:40		Topical discussions (working groups)	
5:00 PM				

### Fri, 15 June 2018 - 1221B Conference Room

*CHAIR: I. Thompson*

9:00 AM	0:45	14	"Ab initio folding potentials for proton-nucleus scattering based on NCSM nonlocal one-body densities"	ELSTER, Charlotte
9:45 AM	0:45	15	"Optical potentials and knockout reactions from Green functions treatment"	IDINI, Andrea
10:30 AM	0:20		<i>Break</i>	
10:50 AM	0:45	16	TBD	ROTUREAU, jimmy



11:35 AM	0:20	Discussions	
11:55 AM	0:05	Announcements	
12:00 PM	1:30	<i>Lunch</i>	
		<i>CHAIR: J. Rotureau</i>	
1:30 PM	0:45	17 "Time-Dependent Basis Function approach to scattering"	VARY, James
2:15 PM	0:45	Topical discussions (working groups)	
3:00 PM	0:20	<i>Coffee Break</i>	
3:20 PM	1:40	Topical discussions (working groups)	
5:00 PM			

### Mon, 18 June 2018 - 1221B Conference Room

*Chair: W. Nazarewicz*

9:00 AM	0:45	18 "Berggren basis: Pedagogical overview"	FOSSEZ, Kevin
9:45 AM	0:45	Discussions	
10:30 AM	0:20	<i>Break</i>	
		Continuum shell model: the unified approach to nuclear structure	
10:50 AM	0:45	19 and reactions"	PLOSZAJCZAK, Marek
11:35 AM	0:20	Discussions	
11:55 AM	0:05	Announcements	
12:00 PM	1:30	<i>Lunch</i>	
		<i>Chair: C. Brune</i>	
1:30 PM	0:45	20 "Gamow shell model with realistic nuclear forces"	XU, Furong
2:15 PM	0:45	21 No Core Gamow Shell Model	BARRETT, Bruce
3:00 PM	0:20	<i>Coffee Break</i>	
3:20 PM	1:40	Topical discussions (working groups)	
5:00 PM			

### Tuesday, 19 June 2018 - 1221B Conference Room

*Chair: R. Navarro Perez*

9:00 AM	0:45	22 "Signatures of few-body resonances in finite volume"	KOENIG, Sebastian
9:45 AM	0:45	23 TBD	RUPAK, Gautam
10:30 AM	0:20	<i>Break</i>	
		Connecting scattering with structure calculation through	
10:50 AM	0:45	24 Improved Busch formula	ZHANG, Xilin
11:35 AM	0:20	Discussions	
11:55 AM	0:05	Announcements	
12:00 PM	1:30	<i>Lunch</i>	
		<i>Chair: W. Dickhoff</i>	
		Solving the quantum mechanical problem, from Variational	
1:30 PM	0:45	25 Monte Carlo to machine learning algorithms	HJORTH-JENSEN, Mort
2:15 PM	0:45	Topical discussions (working groups)	



3:00 PM 0:20 *Coffee Break*  
 3:20 PM 1:40 Topical discussions (working groups)  
 5:00 PM

### Wed, 20 June 2018 - 1221B Conference Room

*Chair: A. Shirokov*

9:00 AM 0:45 26 "The dispersive optical model as an interface between ab initio calculations and experiment" DICKHOFF, Willem  
 "Nuclear reaction in a three body model: exploring the story in Q-space"  
 9:45 AM 0:45 27 JIN, LEI  
 10:30 AM 0:20 *Break*  
 10:50 AM 0:45 28 Connecting experimental data and the analytic S-matrix BRUNE, Carl  
 11:35 AM 0:20 Discussions  
 11:55 AM 0:05 Announcements  
 12:00 PM 1:30 *Lunch*  
*Chair: G. Rupak*  
 1:30 PM 0:45 29 Connecting microscopic NN interactions with heavy nuclei through DFT" NAVARRO PEREZ, Rodrigo  
 2:15 PM 0:45 Topical discussions (working groups)  
 3:00 PM 0:20 *Coffee Break*  
 3:20 PM 1:40 Topical discussions (working groups)  
 5:00 PM

### THU, 21 June 2018 - 1221B Conference Room

*Chair: M. Ploszajczak*

9:00 AM 0:45 30 "Nuclear structure aspects of double charge exchange transitions and the double Gamow-Teller resonance" AUERBACH, Naftali  
 "Level density, underlying physics and the constant temperature model"  
 9:45 AM 0:45 31 ZELEVINSKY, Vladimir  
 10:30 AM 0:20 *Break*  
 10:50 AM 0:45 32 "Many-body perturbation theory calculations" HU, Baishan  
 11:35 AM 0:20 Discussions  
 11:55 AM 0:05 Announcements  
 12:00 PM 1:30 *Lunch*  
*Chair: F.R. Xu*  
 1:30 PM 0:45 33 "Methods to deal with an effective pairing in the continuum: real and complex energy representations" ID BETAN, Rodolfo  
 2:15 PM 0:45 Topical discussions (working groups)  
 3:00 PM 0:20 *Coffee Break*  
 3:20 PM 1:40 Topical discussions (working groups)/FRIB tour  
 5:00 PM



**Fri, 22 June 2018 - 1221B Conference Room**

*Chair: C. Johnson*

"Lessons from the symmetry-adapted no-core shell model:

9:00 AM	0:45	34	collectivity, clustering, sum rules and scattering"	LAUNEY, Kristina
9:45 AM	0:45	35	TBD	MINOMO, Kosho
10:30 AM	0:20		<i>Break</i>	
10:50 AM	1:00	36	"Workshop Summary Talk"	ELSTER, Charlotte and ROTUREAU, Jimmy
11:50 AM	0:10		Discussions	
12:00 PM	1:30		<i>Lunch</i>	
1:30 PM	1:00		Discussions	
2:30 PM			<i>Adjourn</i>	





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