

International Collaborations in Nuclear Theory: Theory for open-shell nuclei near the limits of stability

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May 11-29, 2015, Michigan State University and FRIB/NSCL

Venue: Lecture Hall at the National Superconducting Cyclotron Laboratory

We meet all at the **Theory Trailer** (Trailer nr. 7) on the eastern side of the **National Superconducting Cyclotron Laboratory** (640 South Shaw Lane on the MSU campus). We meet at 8.30am at the **Theory Trailer** for registration. Coffee plus light refreshments are served. Thereafter we walk over to the NSCL Lecture Hall. Lectures start at 9am all days. The Theory Trailer is located close the construction site of the new NSCL/FRIB building (you will see a series of trailers). The Theory Trailer is the one closest to the **Wharton Center for performing arts at MSU** and Bogue street. From the Town Place hotel it is a walk of at **most 20-25 min.** For those of you arriving by plane, if Detroit Metro is your final airport, we recommend using the **Michigan Flyer** bus service to East Lansing. Take thereafter a taxi to the Town Place hotel. If you are staying at the Kellogg conference center, they organize a shuttle transport from downtown East Lansing. If Lansing is your final airport, we recommend taking a taxi directly to the hotel. Alternatively, you can use CATA bus line 14 and connect with bus

Recording of lectures and live streaming

For those of you who cannot attend the lectures, these are streamed live (access only for people at the NSCL). The link to the website is <https://arachnid.nsl.msu.edu/video/icnt/>

Program first week May 11-15 2015

Time	Monday	
9am-10am	Andreas Ekstrom (ORNL/UTK)	Cluster
10.0am-10.30am	Constraining the Description of the Nuclear Interaction	
10.30am-11.30am	Coffee break	
	Heiko Hergert (MSU)	
11.30am-2pm	Effective interactions and operators from IM-SRG	
2pm-3.30pm	Lunch	
3.30pm-4pm	Discussions	
4pm-6pm	Coffee break	
	Discussions	

Program second week May 18-22 2015

Time	Monday	
9am-10am	Jimmy Rotureau (ORNL/MSU)	Towards optical potentials from coupled cluster theory
10am-11am	George Papadimitriou (ISU)	
11am-11.30am	Structure and Reactions of nuclei using complex energy formalism	
11.30am-12.30pm	Coffee break	
12.30pm-2pm	Alexander Volya (FSU)	
2pm-3.30pm	Shell-model approach to nuclear clustering	
3.30pm-4pm	Lunch	
4pm-6pm	Discussions	

Program third week May 25-29 2015

Time	Monday	
9am-10am	Luigi Coraggio (INFN, Napoli)	A new double-step procedure for the derivation of effective interactions
10am-10.30am		
10.30am-11.30am	Coffee break	
	Toshio Suzuki (Tokyo)	
11.30am-2pm	Evaluation of nuclear weak rates relevant to astrophysics	
2pm-3.30pm	Lunch	
3.30pm-4pm	Houda Naidja (Strasbourg)	
4pm-6pm	New Advances in the Shell Model Calculations: Applications around the drip line	