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 line 1 afterwards.

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 NCSL). The link to the website is `https://arachnid.nscl.msu.edu/video/icnt/`

Program first week May 11-15 2015

Time	
9am-10am	
Clustering, Shapes and Nuclear Transmutation studied by the Monte Carlo Shell Model	Const
10.0am-10.30am	
10.30am-11.30am	
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11.30am-2pm	
2pm-3.30pm	
3.30pm-4pm	
4pm-6pm	

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)	
	Structure and Reactions of nuclei using complex energy formalisms	Struct
11am-11.30am	Coffee break	
11.30am-12.30pm	Alexander Volya (FSU)	
	Shell-model approach to nuclear clustering	Re
12.30pm-2pm	Lunch	
2pm-3.30pm	Discussions	
3.30pm-4pm	Coffee break	
4pm-6pm	Discussions	

Program third week May 25-29 2015

Time	Monday
9am-10am	Luigi Coraggio (INFN, Naples)
	A new double-step procedure for the derivation of effective shell-model hami
10am-10.30am	Coffee break
10.30am-11.30am	Toshio Suzuki (Tokyo)
	Evaluation of nuclear weak rates relevant to astrophysical application
11.30am-2pm	Lunch
2pm-3.30pm	Discussions
3.30pm-4pm	Coffee break
4pm-6pm	Discussions