

**Annual Workshop, Pack Forest (WA)  
June 23-26, 2008**

**PROGRAM**

There may be additional afternoon discussions sessions organized ad hoc.

Monday June 23 -- ab initio

Monday Morning

9:00 - 9:15 Workshop Goals (Bertsch, Lusk, Nazarewicz)

9:15 - 9:45 GFMC Benchmarks and Scattering (Pieper)

9:45 - 10:15 Neutron Matter and Drops: GFMC and Skyrme  
(Carlson)

10:15 - 10:30 No Core Shell Model and Resonating Group  
Approach to Scattering (Quaglioni)

10:30 - 11:00 Coffee Break

11:00 - 11:30 ADLB (Lusk)

11:30 - 12:00 CC Developments (Hagen)

12:00 - 12:30 Comparisons of ab initio CC and FCI (Bogner)

Monday afternoon discussions

Calculations in external fields (Furnstahl)

DME implementation in HFB codes (Furnstahl)

DOE Review Summary (Lusk)

Monday Evening

7:00 - 7:25 Physics capabilities and results with MFDn (Maris/Vary)

7:25 - 7:50 Applied Math/Comp Sci Developments with MFDn  
(Ng/Yang/Sternberg)

7:50 - 8:25 Low-momentum interactions for ab initio functionals and  
group report (Furnstahl)

Tuesday June 24 -- Mean fields

Tuesday Morning

9:00 - 9:30 Benchmarking odd-even mass difference and pairing  
(Bertsch)

9:30 - 10:00 DFT infrastructure (Stoitsov)

10:00 - 10:30 Broyden's method from an optimization viewpoint  
(Moré)

10:30 - 11:00 Coffee Break

11:00 - 11:30 The wavelet-based DFT solver (Fann)

11:30 - 12:00 The sinc-based DFT solver (Magierski)

Afternoon discussions

New-generation functionals (Nazarewicz)

MassExplorer demonstration and other DFT codes (Stoitsov)

The CI solver (Vary)

Tuesday evening

7:30-8:00 Odd-mass calculations: status, problems and perspectives  
(Schunck)

8:00-8:30 DFT for neutron droplets (Bulgac)

8:30-8:45 Data to constrain EDF (Nazarewicz)

Wednesday, June 25, DFT extensions

Wednesday morning

9:00 - 9:30 A Skyrme QRPA code for deformed nuclei (Terasaki)

9:30 -10:00 TD-SLDA status and plans (Bulgac/Roche)

10:00 - 10:30 Projected CI method for deformed mean-field  
configurations (Gao)

10:30 - 11:00 Coffee Break

11:00 - 11:30 Many-body Approximations in the sd-shell Sandbox (Brown)

11:30 - 12:00 CI codes and CI for the unitarity Fermi gas (Johnson)

12:00 - 12:30 Progress report on calculating accurate nuclear level densities using spin projected moments method (Horoï)

Wednesday evening

7:00 - 7:30 Benchmarking single particle states (Dobaczewski)

7:30 - 8:00 Ab initio DFT (Bartlett)

Thursday June 26 Reactions

Thursday Morning

9:00 - 9:30 Ab initio nucleon-nucleus scattering (Navratil)

9:30 - 10:00 (n,n') based on RPA (Dupuis)

10:00 - 10:30 Hauser-Feshbach codes (Ormand)

10:30 - 11:00 Coffee Break

11:00 - 11:30 Coupled channel calculations (Nobre)

11:30 - 12:00 Optical Potentials\* (Arbanas)

12:00 - 12:30 Future Plans (Thompson)

Thursday Afternoon

5:00 General Meeting

Thursday Evening

work plan summaries by Advisory Board members

\*if not ready, may replace with "KKM statistical theory"