

Proton-neutron pairing and quartet correlations in nuclei

Workshop ECT* Trento, September 19-23, 2016

Program

Monday

- 08:00-09:15 Registration
- 09:15-09:30 Welcome and workshop goals
- 09:30-10:15 R. Chasman: Neutron-proton pairing in nuclei
- 10:15-11:00 A. Gezerlis: Pairing from cold atoms to neutron stars and heavy nuclei
- 11:10-11:30 Coffee
- 11:30-12:15 D. Negrea: Proton-neutron pairing and alpha-like quartet correlations
- 12:15-13:00 J. Dukelsky: Exactly solvable proton-neutron models
- 13:00-14:30 Lunch
- 14:30-15:00 D. Gambacurta: Proton-neutron pairing in odd-odd $N=Z$ nuclei
- 15:00-15:30 Y. Tanimura: Three-body model calculations for $N=Z$ odd-odd nuclei
- 15:30-16:00 Coffee
- 16:00-17:00 Discussions

Tuesday

- 09:00-09:45 S. Frauendorf: Proton-neutron pairing in $N=Z$ nuclei: Cooper vs spin-aligned
- 09:45-10:30 P. van Isacker: Isoscalar pairing and pairs in nuclei
- 10:30-11:00 Coffee
- 11:00-11:45 C. Qi: Neutron-proton correlation and the spin-aligned pairs: shell-model perspective
- 11:45-12:30 Discussions
- 12:30-14:00 Lunch
- 14:00-14:45 A. Vitturi: Pairing correlations in transfer reactions
- 14:45-15:30 M. Assie: Proton-neutron pairing through two-nucleon transfer reactions
in fp-shell nuclei

15:30-16:00 Coffee

16:00-17:00 Discussions

Wednesday

09:30-10:15 C. W. Johnson: Seniority and other group decompositions I've known

10:15-11:00 P. Vogel: Proton-neutron interaction and the rate of double-beta decay

11:00-11:30 Coffee

11:30-12:15 R. J. Liotta: Proton-neutron correlations in particle radioactivity:
the limitations of shell model

12:15-13:00 G. de Angelis: Proton-neutron correlations: high spin signatures

13:00-14:30 Lunch

14:30-15:30 Discussions

15:30-16:00 Coffee

16:00-17:00 Colloquium: A. O. Macchiavelli

Thursday

09:00-09:45 M. Sambataro: Alpha-like quartet correlations induced by realistic
shell-model interactions

09:45-10:30 A. Volya: Configuration interaction studies of pairing and clustering in light nuclei

10:30-11:00 Coffee

11:00-11:45 P. Schuck: Alpha particle condensation in nuclear systems

11:45-12:30 N. Manton: Skyrmions, Alpha-Particles and Oxygen-16

12:30-14:00 Lunch

14:00-14:45 T. Neff: Two- and four-body correlations in nuclei

14:45-15:10 R. Lasseri: Impact of quartetting on clustering

15:10-15:35 V. V. Baran: Proton-neutron correlations and alpha decay

15:35-16:00 Coffee

16:00-17:00 Discussions

Friday

09:30-10:15 J. Cseh: Quartetting and clustering and their symmetry-based connection

10:15-11:00 Y. Taniguchi: Cluster correlations in deformed states

11:00-11:30 Coffee

11:30-12:15 S. Pittel: Summary talk