

Questions to be answered on May 11, 2011:

1. What is the deformed mean field approach? (Dilu)
2. What is superdeformation (as opposed to normal deformation)? (Azamat+Sushil)
3. Is the ground state of ^{36}Ar (super?) deformed or not? Which (if any) states are (super?) deformed in ^{36}Ar ? Does ^{36}Ar have different shapes? Does the shape of ^{36}Ar depend on its angular momentum? What about other nuclei? (Harsha)
4. How is collective rotation related to having one (or more) open shells? (Novo)
5. Why does backbending happen? (Anthony)
6. Do all nuclei show the backbending phenomenon (why/why not)? Does backbending always happen at spin $10 \hbar$ (why/why not)? What are the factors, which determine when (if) backbending happens? Can we think of backbending as a critical phenomenon, i.e., in terms of a thermodynamical phase transition? (Chen+Ken)
7. What is a stretched E2 transition? How could you identify dipole radiation? How do angular distributions of different radiation multipolarities look like? (Anton)
8. Why are there two $10+$ states in the level scheme? What is the significance of the second $10+$ state? (Cody+Shamim)
9. Why is $16+$ the highest spin state discussed in this paper? Do rotational bands terminate or continue indefinitely? Explain the why and how. (Youngshin)