

Colloquium

SFB 956

Conditions and Impact of Star Formation

13 May 2019

Monday 3:00 pm

Physikalische Institute Köln

Lecture Hall III

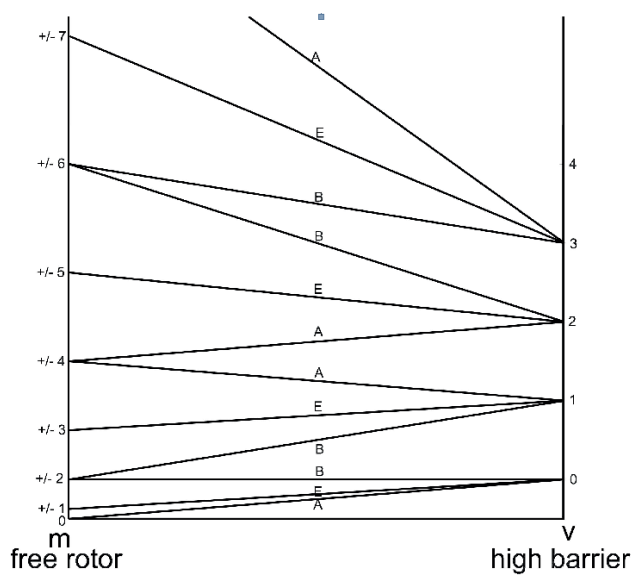
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Extended Townes-Dailey Analysis and Four-Fold Internal Rotation

This talk (might) cover three topics, depending on time. Topic 1, The use of the Extended Townes Dailey (ETD) analysis to understand the two hyperfine tensors of 2-bromopyridine. The ETD analysis is a generalization on the original Townes-Dailey analysis, which involved determining the only one component of the nuclear quadrupole coupling tensor, With ETD, all component of the tensor are predicted, including when the orbitals of atom in question is hybridized. With this as a background, the ETD analysis will be used to try to understand how the p orbitals on nitrogen could generate an eQq of CN^+ of +5.0 MHz. Topic 2, The first high resolution study of the torsional splittings of a four-fold internal rotor, vinylsulfur pentafluoride. Topic 3, will be on spin statistics made (overly) simple. This part of the talk is pedagogical, and should be useful for researchers and students.



Correlation diagram for the four-fold internal rotor