How to Draw a Level Scheme?

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Abstract

Drawing a level scheme is a procedure of figuring the levels and decaying transitions of an excited nucleus, which nowadays is a wellknown, rather technical procedure. In a previous talk we showed that some extra correlations exist in the gamma-ray coincidence spectra which we were able to sample in the decay of high-spin states of several nuclei populated by fusion-evaporation heavy ion reactions. By this property which we called repeatability, one can take a deeper look at the principles of a level scheme, and how it can be transformed in order to include repeatability.