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Level Structure of ^{83}Rb in the Projected Shell Model

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Abstract: The projected shell model is applied to the odd-proton nucleus ^{83}Rb. The results of theoretical calculations about the excited positive-parity yrast states and the negative-parity ground-state band are compared with experimental data, and the best reproduction of the experiment has been given by this model. In addition, a band diagram calculated for the negative-parity g.s. band is also shown in order to extract physics out of the numerical results.

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