



Contribution ID: 179

Type: **Poster**

## The B(E2) transition Probabilities for 122-130Te (Tellurium) Even-Even Isotopes with the help of Cubic terms from Casimir Invariant Operators and IBM-1

*Thursday, 23 September 2021 15:30 (2 hours)*

The interacting boson model-1 has been used to calculate the reduced electric transition probability  $B(E2) \downarrow$  of even-even 122-130Te (Tellurium) isotopes with even neutrons from  $N = 70$  to 78. The three-three boson interactions are also formed in the Hamiltonian from Casimir invariant operators. The parameters of best fit to measure the data is used from the experimental value of  $B(E2; 21+ \rightarrow 01+)$  for even-even 122-130Te isotopes. The theoretical values are good in agreement especially with the experimental ones. The branching ratios  $B(E2; 41+ \rightarrow 21+) / B(E2; 21+ \rightarrow 01+)$  is less than 2 represents U(5) symmetry in 122-130Te isotopes.

**Primary authors:** RANI, Pinky (Research Scholar); Mr RAMESH KUMAR, Ramesh (Professor)

**Presenter:** RANI, Pinky (Research Scholar)

**Session Classification:** Poster Session 2

**Track Classification:** Nuclear Structure, Reactions and Dynamics