NUCLEAR STRUCTURE BELOW AND ABOVE ^{132}Sn

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The 2_1^+ excitation energy in neutron-rich Cadmium isotopes deviates from the expected systematics. It first increases from $N = 70$ to $N = 76$ and then a flattening of the $E(2+)$ curve occurs at $N = 78$ and $N = 80$. With only 2-proton and 2-neutron holes in the doubly magic ^{132}Sn core, the low-lying excited states in ^{128}Cd have enhanced collectivity. The isomeric decay studies of odd-A Cd isotopes revealed the presence of an enhanced *pn* interaction resulting in a deviation from the expected systematics. On the other hand, the study of mixed-symmetry states in $N = 80$ isotones namely ^{134}Xe, ^{136}Ba and ^{138}Ce manifest a large effect of underlying single-particle structure on the evolution of these collective excitations. This interesting interplay between the single-particle behavior of the nucleons and the *pn* interaction, responsible for driving the collectivity in a nucleus and its influence on the evolution of nuclear properties around doubly magic ^{132}Sn will be discussed.