

## Exotic hadrons in the decays of vector bottomonia

*Friday, 26 October 2018 10:50 (15)*

Line shapes of the  $Z_b(10610)$  and  $Z_b(10650)$  bottomonium-like exotic states produced in the decays of vector bottomonium  $Upsilon(10860)$  are analysed. A combined analysis of the existing experimental data in the elastic and inelastic decay channels of  $Upsilon(10860)$  is performed within a nonperturbative coupled-channel approach which complies with the requirements of unitarity and analyticity of the multichannel amplitude. The nature of the  $Z_b$  states is revealed and the parameters of the interaction are extracted from the fit for the data. The heavy quark spin symmetry is employed then to predict the poles position and the line shapes of the spin partners of the  $Z_b$  states which are expected to be produced in radiative decays of the vector bottomonia  $Upsilon(10860)$  and  $Upsilon(11020)$ .

**Primary author(s)** : Dr. NEFEDIEV, Alexey (MEPhI)

**Presenter(s)** : Dr. NEFEDIEV, Alexey (MEPhI)

**Session Classification** : Particle Physics

**Track Classification** : Particle physics