

## NEW MODES OF COLLINEAR CLUSTER TRI-PARTITION OF $^{252}\text{Cf}(\text{sf})$

*Tuesday, 12 July 2022 12:10 (20 minutes)*

In our previous publications [1–4] we discussed various manifestations of a new decay channel of the low excited heavy nuclei called collinear cluster tri-partition (CCT). In the frame of the essentially modified experimental method, additional linear structures corresponding to the relations  $M_1 + M_2 = \text{const}$  and  $M_1 - M_2 = \text{const}$  for the masses  $M_1$  and  $M_2$  of the fission fragments (FFs) from  $^{252}\text{Cf}(\text{sf})$  detected in the opposite spectrometer arms form the rhombic-like configurations with the vertices corresponding to the magic nuclei. The structures are statistically reliable, they are conditioned by a pronounced and complex correlation between the masses of the FFs measured independently. Possible physical scenario standing behind the structures are discussed.

### The speaker is a student or young scientist

No

### Section

1. Experimental and theoretical studies of nuclear reactions

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