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Two-neutron decay from the 2_1^+ state of ^{6}He YUMA KIKUCHI, Nishina Center for Accelerator-based Science, RIKEN, TAKUMA MATSUMOTO, KOSHO MINOMO, Kyushu University, KAZUYUKI OGATA, RCNP, Osaka University — Two-neutron correlations in neutron-rich nuclei have attracted much attention. In paricular, in two-neutron halo nuclei, such two-neutron correlations are characterized as a sptially-correlated n-n pair, the so-called dineutron, and have extensively studied from both theoretical and experimental sides. In this contribution, we investigate the dineutron correlation in the excited resonant state of ^{6}He. To do it, we calculate the breakup cross section of ^{6}He+^{12}C reaction at 240 MeV/nucleon, in which the 2_1^+ resonant state is populated. From the results, we pin down the decay mode of the 2_1^+ state, and discuss the exsistence of a dineutron in the excited state of ^{6}He.

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