

## **POSSIBLE IMPLICATIONS OF VHE $\gamma$ -RADIATION FROM THE X-RAY BINARY CENTAURUS X-3**

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We discuss different theoretical models that could explain self-consistently the existing data from observations of Cen X-3 in high energy ( $E \geq 100$  MeV) and very high energy ( $E \geq 100$  GeV)  $\gamma$ -rays. Based on the energetics required all reasonable options for  $\gamma$ -ray production in Cen X-3 are connected with jets emerging from the inner accretion disc around the neutron star. A large-scale source could explain the bulk of  $\gamma$ -radiation features, except for the modulation of the  $\gamma$ -ray signal with the pulsar spin. These modulations, if genuine, would require an alternative source with dimension  $\ll 10^{11}$  cm. We consider two principal models, hadronic and leptonic, for formation of such a compact source in the jet.