

We investigate the dynamical horizon area law formalism with torus topology in cross section. We suggested a possible way to write a area law for the apparent horizon which has topology of flat torus in the cross section. Specially, we proposed a area law for the Vaidia metric with flat torus topology on cross sections on the horizon. In this case, the area of the horizon cross sections does not increase. We show that this metric matches the metric by Vanzo as the stationary phase.