Gas mass over time Threshold-based model Federrath & Klessen (2012) Hopkins et al. (2013) with efficiency of Padoan et al. (2012) 10.0 Hopkins et al. (2013) with  $\alpha_{\text{vir}}$  threshold Hopkins et al. (2013) with  $\alpha_{\rm vir}$  of Padoan et al. (2012) 9.5 Gas mass [log(M<sub>sol</sub>)] 9.0 8.5 8.0 7.5 30 15 20 25 35 40 45 50 time [Gyr]