



Figure 2. The predicted γ -ray spectra for various Galactic diffuse emission components and their corresponding CTA count rates for 500 hours of observations of the inner $10^\circ \times 10^\circ$ regarding the CTA instrument response function. The background components are ICS, GCE, Fermi Bubble and Cosmic Rays. The left plot dark matter component correspond to the NFW profile with mass 2.7 TeV and Fermi bubble minimum case (optimistic case) and the right to the cored profile with 3 TeV mass and Fermi bubble maximum case (pessimistic case).