

Based on the literature:

"...The curvature of the Universe is estimated to be **flat**, with a positive curvature being a possibility but not currently supported by the data.
The universe's curvature is determined by its density, and while it is likely flat, the exact value remains uncertain.
Bayesian models suggest a probability between 67% and 98% for a spatially infinite universe, depending on the choice of priors.
Future observations, such as cosmic microwave background (CMB) and baryon acoustic oscillations (BAO) data, will provide more precise measurements and further refine our understanding of the universe's curvature."

<https://background.uchicago.edu/~whu/Papers/mcurvature.pdf>

https://www.astronomy.ohio-state.edu/ryden.1/ast162_9/notes40.html

<https://arxiv.org/pdf/0901.3354>

<https://www.ams.org/notices/199811/cornish.pdf>

<https://arxiv.org/pdf/2301.09591>

<https://www.bing.com/videos/riverview/relatedvideo?q=estimates+of+the+large+scale+curvature+of+the+Universe&mid=541194577F7BFDBC2449541194577F7BFDBC2449&mmscn=stvo&FORM=VIRE>

<https://astronomy.stackexchange.com/questions/60137/it-is-said-that-if-the-universe-has-large-scale-curvature-it-will-affect-the-ang>

More references since 2001:

https://scholar.google.com/scholar?q=curvature+of+the+universe+estimates&hl=en&as_sdt=0%2C36&as_ylo=2001&as_yhi=