

**Publisher's Note: Vacuum energy sequestering:
The framework and its cosmological consequences
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This paper was published online on 14 October 2014 with imprecise text on page 15. On page 15, the text following Eq. (47) should read as

“If we were to take the limits of integration to be the time intervals where the scale factor literally vanishes, and the dominant stress-energy sources determining the behavior of H obey NEC, the left-hand side would have vanished for precisely the same reasons as we have already discussed in Sec. IV A. This would appear to have ruled out spatially open and flat FRW universes, as is clear from Eq. (47) since in this case the right-hand side could only have vanished if H and k were exactly zero at all times. This argument is a little hasty, however. The point is that the integration must be ended at times when the curvature R reaches the Planck scale, and not when the scale factor exactly vanishes. Thus the left-hand side does not vanish, but simply represents a boundary condition which the terminal geometry must satisfy to ensure that (1) it is a solution of Einstein's equations and (2) that the vacuum energy is sequestered. Indeed, the left-hand side is merely a nonzero number which represents the difference between $a^3 H$ at the beginning and the end of cosmology, encoding the posterior determination of the effective cosmological constant $\Lambda_{\text{eff}} = \langle \tau \rangle / 4$, communicated to the on-shell geometry by way of Einstein's equations. For small universes, the contributions to this term from beyond the cutoff are sufficiently important that we can treat it as an arbitrary boundary condition allowing any value of k . However: for large and old universes, the integrals on the right-hand side are dominated by the contributions from large volumes near the turning point, and thus essentially insensitive to the boundary conditions. Since the left-hand side is much smaller, the integrals on the right-hand side must include negative contributions that yield cancellations to match the left-hand side. Thus having a large old approximately FRW universe does require $k = 1$ (and so $\Omega_k < 1$). Small inhomogenous universes may evade this. A similar observation was made in a different context in Ref. [34].”

The paper has been corrected as of 30 October 2014. The text is correct in the printed version of the journal.