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Charles F Doran\* (doran@math.washington.edu), University of Washington, Department of Mathematics, Box 354350, Seattle, WA 98195-4350, and John W Morgan (jm@math.columbia.edu), Columbia University, Department of Mathematics, 2990 Broadway, Mailcode 4406, New York, NY 10027. Algebraic Topology of Calabi-Yau Threefolds in Toric Varieties.

We compute the integral homology (including torsion), the topological K-theory, and the Hodge structure on cohomology of Calabi-Yau threefold hypersurfaces and complete intersections in Gorenstein toric Fano varieties. The methods are purely topological. (Received August 07, 2006)