Abstract. We give a precise description of the homology group of the Fermat curve as a cyclic module over a group ring. As an application, we prove the freeness of the profinite homology of the Fermat tower. This allows us to define measures, an equivalent of Anderson’s adelic beta functions, in a similar manner to Ihara’s definition of \( \ell \)-adic universal power series for Jacobi sums. We give a simple proof of the interpolation property using a motivic decomposition of the Fermat curve.