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Peter Connor* (pconnor@iusb.edu), **Kevin Li** and **Matthias Weber**. *The Gauss-Bonnet formula for harmonic surfaces.*

We consider harmonic immersions in \mathbb{R}^d of compact Riemann surfaces with finitely many punctures where the harmonic coordinate functions are given as real parts of meromorphic functions. We prove that such surfaces have finite total Gauss curvature. The contribution of each end is a multiple of 2π , determined by the maximal pole order of the meromorphic functions. This generalizes the well known Gackstatter-Jorge-Meeks formula for minimal surfaces. The situation is complicated as the ends are generally not conformally equivalent to punctured disks, nor does the surface have limit tangent planes. (Received January 25, 2014)