1060-53-233   **Evelyn J Lamb*** (`ejlamb@rice.edu`), Mathematics, MS 136, Rice University, P.O. Box 1892, Houston, TX 77251. *The Hopf differential and harmonic maps on branched hyperbolic surfaces.* Preliminary report.

The Hopf differential is a useful tool in the study of harmonic maps. Here, we use the Hopf differential to give a parametrization of the space of branched hyperbolic surfaces. (Received March 30, 2010)