

1085-53-266

Thalia D. Jeffres*, Wichita State University, Wichita, KS 67260, and **Klaus Kirsten** and **Tianshi Lu**. *Zeta Function on Surfaces of Revolution*.

In recently completed joint work with Klaus Kirsten and Tianshi Lu, we studied the zeta function on compact surfaces of revolution with boundary. We were able to calculate the values and residues of a meromorphic extension at values which are physically and geometrically significant. In particular, we obtained a formula in closed form for the derivative at zero of such an extension. This allows one to define the determinant of the Laplacian. (Received September 11, 2012)