1133-58-82 **Emmett L Wyman*** (emmett.wyman@gmail.com), 2701 NORTH CALVERT ST, Baltimore, MD 21218. *Explicit bounds on integrals of eigenfunctions over curves in surfaces of nonpositive curvature.*

Let (M, g) be a compact, 2-dimensional manifold without boundary with non-positive sectional curvature. Let Δ_g denote the Laplace-Beltrami operator on M with respect to the metric g, and let e_λ be L^2-normalized eigenfunctions of Δ_g with eigenvalue λ, i.e.

$$-\Delta_g e_\lambda = \lambda^2 e_\lambda.$$

We prove that, given a smooth arc-length parametrized curve γ in M and $b \in C_0^\infty(\mathbb{R})$, we have

$$\int b(s) e_\lambda(\gamma(s))\, ds = O((\log \lambda)^{-1/2}) \qquad \text{as } \lambda \to \infty,$$

provided that for all $t \in \operatorname{supp} b$ the geodesic curvature of γ at t avoids two critical curvatures $\mathbf{k}(\gamma'(t)^\perp)$ and $\mathbf{k}(-\gamma'(t)^\perp)$. (Received July 12, 2017)