

1027-47-190

**Linda J Patton** and **Marian E Robbins\*** (mrobbins@calpoly.edu). *Approximating composition operator norms on the Dirichlet space.*

The eigenfunctions of the square of the modulus of the restriction operator from the Bergman space of functions analytic on the disk  $\mathbb{D}$  of the complex plane to the Bergman space of functions analytic on a domain  $\Omega \subset \mathbb{D}$  form a system that is orthogonal in both spaces. We exploit this double orthogonality to produce a method for approximating, to any desired degree of accuracy, the norm of a composition operator  $C_\varphi$  on the Dirichlet space induced by a univalent self-map  $\varphi$  of the unit disk whose image  $\varphi(\mathbb{D}) \equiv \Omega$  has compact closure in the disk. (Received February 26, 2007)