## RACHEL WEIR, Allegheny College

## Normal Weighted Composition Operators on Weighted Dirichlet Spaces

We characterize the normal weighted composition operators  $W_{\psi,\varphi}$  on the Dirichlet space  $\mathcal{D}$  in the case when  $\varphi$  is a linearfractional self-map of the unit disk  $\mathbb{D}$  with fixed point  $p \in \mathbb{D}$  and  $\psi$  is bounded and analytic on  $\mathbb{D}$ . In particular, we show that no nontrivial normal weighted composition operators exist on the Dirichlet space, that is,  $W_{\psi,\varphi}$  is normal on  $\mathcal{D}$  if and only if  $\psi$  is constant and  $\varphi(z) = cz$ , where  $|c| \leq 1$ . We also extend some of these results to weighted Dirichlet spaces.