

## **STRONG STATIONARY DUALITY FOR DIFFUSIONS**

**Vince Lyzinski**, The Johns Hopkins University, USA, lyzinski@ams.jhu.edu

**James A. Fill**, The Johns Hopkins University, USA, jimfill@jhu.edu

Strong stationary duality has had a wide-ranging impact on Markov chain theory since its conception by Diaconis and Fill in 1990. Its diverse applications range from perfect sampling extensions of Markov Chain Monte Carlo to the establishment of cutoff phenomena for wide classes of Markov chains. We extend the idea of strong stationary duality to one-dimensional diffusion processes and in doing so recover some classical Markov chain results in the diffusion setting.