

# WICHITA STATE UNIVERSITY

Department of Mathematics, Statistics & Physics

Visiting Candidate for Assistant Professor Position

## Dr. Christopher Green

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“Aspects of potential theory in the plane,  
on the sphere, and on the torus”

Abstract:

Consider releasing a Brownian particle from a basepoint  $z_0$  in a planar domain  $C$ . What is the chance, denoted  $h_{z_0}(r)$ , that the particle's first exit from  $C$  occurs within a fixed distance  $r > 0$  of  $z_0$ ? The function  $h_{z_0}: [0, \infty) \rightarrow [0, 1]$  is