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**Daniel Dobbs\*** ([dwd2r@virginia.edu](mailto:dwd2r@virginia.edu)), P. O. Box 400137, University of Virginia, Charlottesville, VA 22904. *Smoothness Properties of the Law of Brownian Motion in Certain Infinite Dimensional Spaces.*

A measure  $\mu$  on  $\mathbb{R}^n$  may be called *smooth* if  $d\mu = \rho d(\text{Lebesgue})$  for a smooth function  $\rho$ . While this definition of smoothness is problematic in infinite dimensions, there are definitions of smoothness that do apply to measures in infinite dimensional spaces. We will show that the law of a Brownian motion on certain infinite dimensional curved spaces has smooth properties. (Received September 25, 2012)