Pathwise uniqueness for reflecting Brownian motion in certain planar Lipschitz domains

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Abstract

We give a simple proof that in a Lipschitz domain in two dimensions with Lipschitz constant one, there is pathwise uniqueness for the Skorokhod equation governing reflecting Brownian motion.

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Bibliography

1. M. Barlow, K. Burdzy, H. Kaspi and A. Mandelbaum. Variably skewed Brownian motion *Electr. Comm. Probab.* 5 (2000), paper 6, pp. 57-66. Math. Review 2001j:60146
2. R. Bass, K. Burdzy and Z. Chen. Uniqueness for reflecting Brownian motion in lip domains *Ann. I. H. Poincar'e* 41 (2005) 197-235. Math. Review 2005k:60174
3. R. Bass and E.P. Hsu, Pathwise uniqueness for reflecting Brownian motion in Euclidean domains. *Probab. Th. Related Fields* 117 (2000) 183-200. Math. Review 2001e:60164
4. I. Karatzas and S.E. Shreve. *Brownian Motion and Stochastic Calculus*, 2nd Edition, Springer Verlag, New York, 1991. Math. Review 92h:60127
5. D. Revuz and M. Yor, *Continuous Martingales and Brownian Motion*, 3rd ed. Springer, Berlin, 1999. Math. Review 2000h:60050