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Armando Arciniega* (armando.arciniega@utsa.edu), Department of Mathematics, The University of Texas at San Antonio, One UTSA Circle, San Antonio, TX 78249. *Shooting Methods for Numerical Solution of Nonlinear Stochastic Boundary-Value Problems.*

In the present investigation, shooting methods are described for numerically solving nonlinear stochastic boundary-value problems. These stochastic shooting methods are analogous to standard shooting methods for numerical solution of ordinary deterministic boundary-value problems. It is shown that the shooting methods provide accurate approximations. An error analysis is performed and computational simulations are described. (Received January 02, 2007)