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Ali A. Alikhani-koopaei* (aalikhan@uwc.edu), Department of Mathematics, UW-Marathon County, 518 South 7th Ave., Wausau, WI 54401. *On Extreme Path and Extreme First Return Path Derivatives*. Preliminary report.

It is shown that the right(left) first return systems of paths are right(left) continuous and the extreme path derivatives of functions in B_α (Borel measurable functions, Lebesgue measurable functions) are elements of $B_{\alpha+2}$ (Borel measurable, Lebesgue measurable). It is also shown that the first return path derivatives of continuous functions have some similarities with their Dini derivatives eventhough they are not identical. (Received October 03, 2000)