The expected diameter of an L^2-bounded Martingale is attainably bounded from above by $\sqrt{3}$ times the standard deviation of the last term

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Abstract. This joint work with Dubins and Gilat extends earlier results by Dubins and Schwarz on the expected maximum and expected maximal absolute value of the Martingale, where the respective constants are 1 and $\sqrt{2}$. Since Martingales can be viewed as optional sampling of Brownian Motion, it is natural to expect stopped Brownian Motion to attain these bounds. The pertinent three stopping times will be presented explicitly.

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