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**Amin Boumenir\*** (boumenir@westga.edu), University of West Georgia, Carrollton, GA 30118,  
and **Vu Kim Tuan**, University of West Georgia, Carrollton, GA 30118. *Sampling in Hardy  
Spaces.*

We prove a new sampling formula for functions in Hardy spaces and disprove the existence of a Shannon sampling type formula there. This extends the sampling method to compute eigenvalues of a singular Sturm-Liouville problem in the presence of a continuous spectrum. We also show a new series representation of the Riemann zeta function in the half plane. (Received August 10, 2009)