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Dampening vibration modes of the snare drum batter head

Barry Larkin^a and Andrew Morrison^b

^aIowa State University, Department of Music, Music Hall, Ames, IA 50011, USA

^bIllinois Wesleyan University, Department of Physics, 1312 N. Park St., Bloomington, IL 61701, USA

Percussionists have always had to contend with an undesirable ringing sound while performing on the snare drum. It is usually referred to as the "edge ring." A common method to eliminate this sound comes from placing some type of dampening material on the edge of the drum head. Manufacturers of drums have provided many ways of dealing with this problem including internal dampening devices, customized drums heads or material designed to be placed on the drum head. Using electronic television holography, it was revealed the source of this "ring" to be the third mode of vibration that produces a pitch approximately one octave and a half step above the fundamental [Larkin and Morrison, *JASA*, **122**, #5, pp 3056]. In this update to the previous work, we will show the effect of dampening devices on the third and other modes.