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**The interaction between the strings and soundboard of a harp**

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The harp is an instrument with a set of plucked strings that excite the sound board directly, without the medium of a bridge. The strings are positioned at an acute angle to the plane of the sound board. The quality of the sound produced depends on the motion of the string, which is non-planar, and its interaction with the resonances of the sound board. The interaction is intrinsically non-linear as the soundboard responds to changes in both the angle and the tension of the string. To avoid the difficulties of string-string interactions on a real harp, a small test "instrument" has been constructed with a single string and a variable-angle sound board. The string and sound board motions have been measured simultaneously. Preliminary results will be presented.