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**Characterizing the sound of an African thumb piano (kalimba)**

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The kalimba is an African percussion instrument whose notes are generated by vibrating metal tines of various lengths attached to sound board or sound box. Unlike a vibrating string or organ pipe, the overtone structure is anharmonic, that is, the overtone frequencies (which determine sound quality) are not simple integer multiples of the fundamental frequency (which determines pitch). The ratio of the first overtone to the fundamental is in the range 5.3-5.9, depending on the tine geometry. The vibrating tines are modelled as a clamped-supported-free beam and the observed overtone structure is shown to be in accordance with this model. Audio examples will be provided.