

MSc. Music and Acoustic Engineering

Musical Acoustics - A.Y. 2020/2021

H7 - Eigenfrequency Study of a Marimba Bar

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1 Constructing the mesh

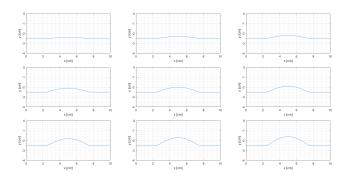


Figure 1: Profiles of the lower surface of a marimba bar with the depth of the arching varying from 1 to 9 mm.

Our aim in this homework is to study the dependency of the modes of a marimba bar on the depth a of the arching. Fig. 1 shows how we modelled the profiles: the cutaway is sinusoidal in shapes and varies from 1 to 9 mm in depth in steps of 1 mm.