



**POLITECNICO**  
MILANO 1863

MSC. MUSIC AND ACOUSTIC ENGINEERING

MUSICAL ACOUSTICS - A.Y. 2020/2021

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## **H5 - Synthesis of the guitar sound**

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## 1 Bridge impedance

The bridge impedance is computed as the ratio between the pressure on the top plate (the force applied to the top plate divided by the effective top plate area) and the volume velocity of the plate itself. The bridge is modelled as a two-mass system in which each element is assumed to be lumped, a reasonable assumption considering that we are interested in the frequencies below 500 Hz.