VIBRATION TECHNIQUES IN NON-DESTRUCTIVE TESTING OF WOOD Mehran Roohnia, Associate Professor mehran.roohnia@cirad.fr

Transverse (flexural) Vibration of a Free-Free Beam

- Bernoulli bending theory (1748) (Originally for isotropic materials)
- **Timoshenko bending theory (1921)** (Originally for isotropic materials)

• ASTM C1548-02 (Originally for Refractory Materials)

Longitudinal Vibration of a Free-Free Beam



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