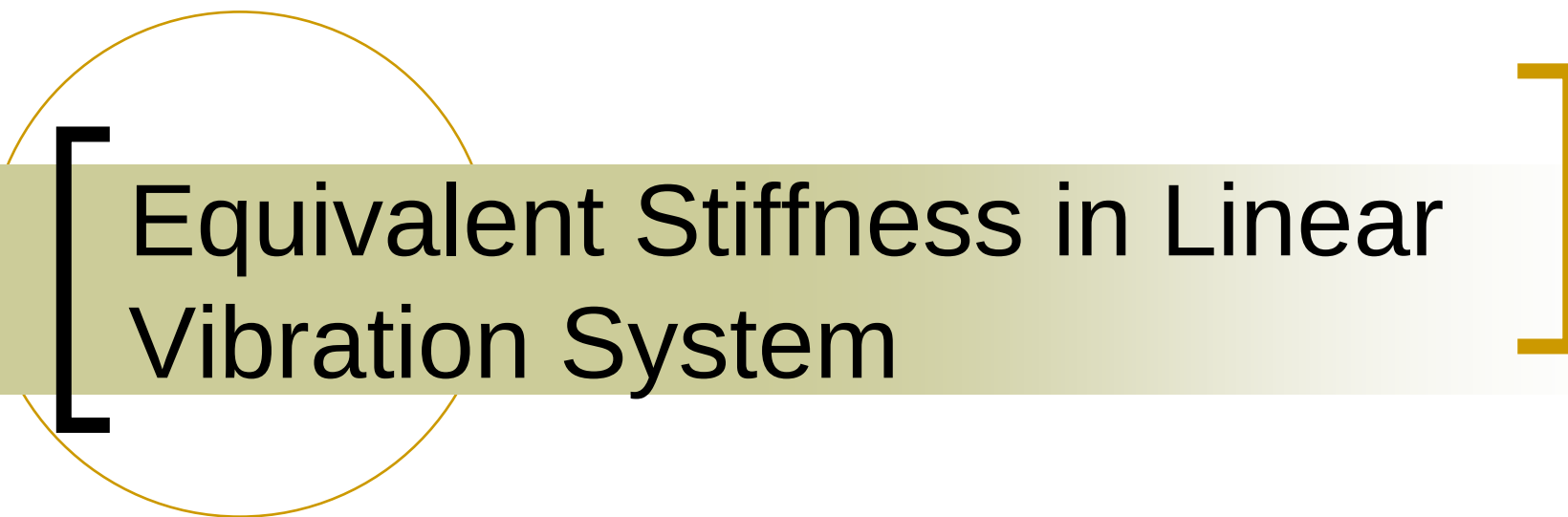




Mechanical Vibration I (4)

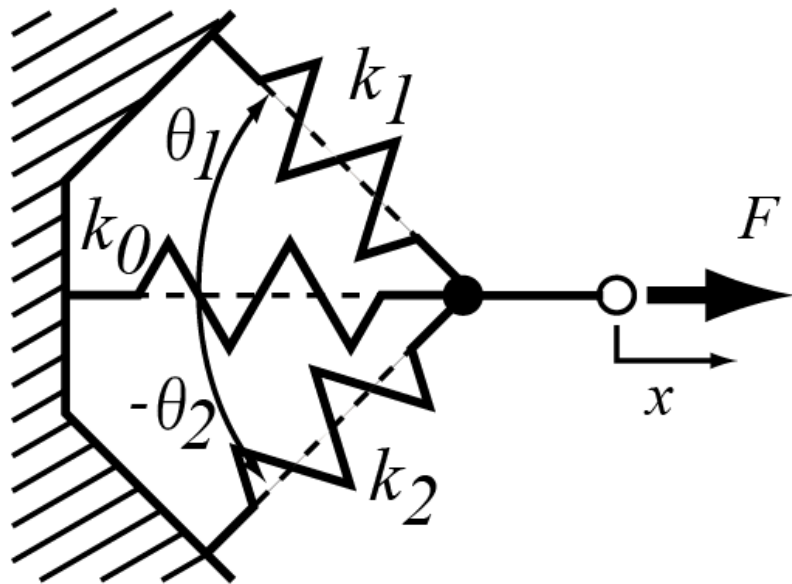
Department of Mechanical and
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Hiroshi Yamaura

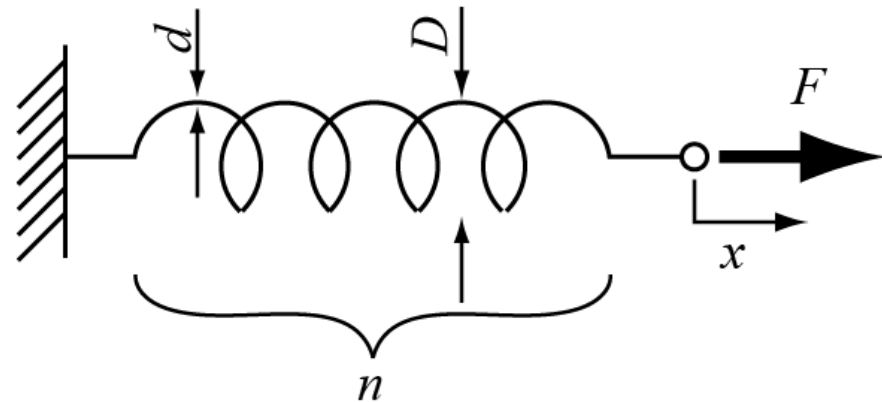


Equivalent Stiffness in Linear Vibration System

[Linear vibration system (1)]

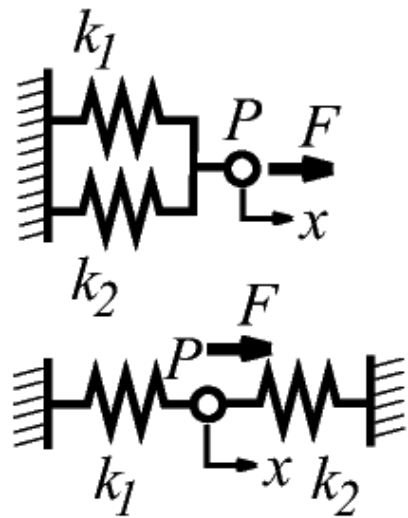


(a) Angled springs

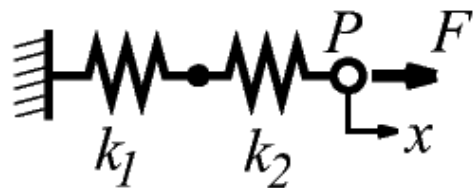


(b) Spring element

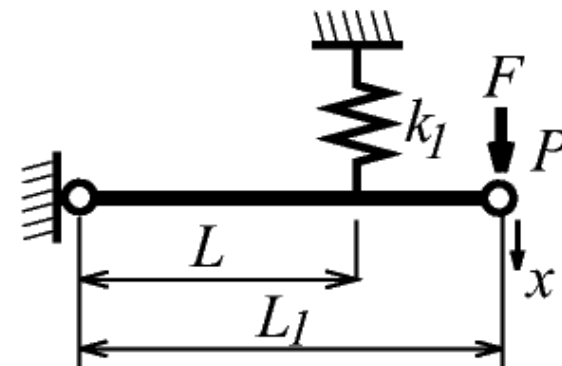
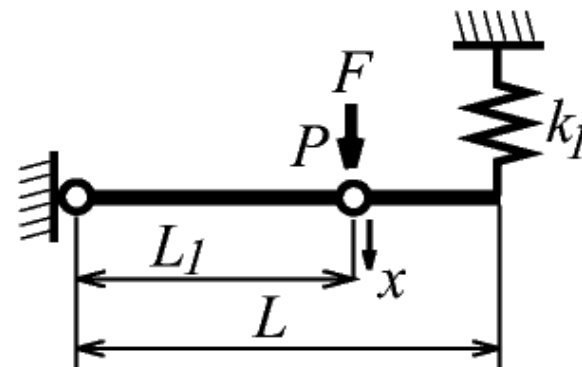
[Linear vibration system (2)]



(c) Parallel springs

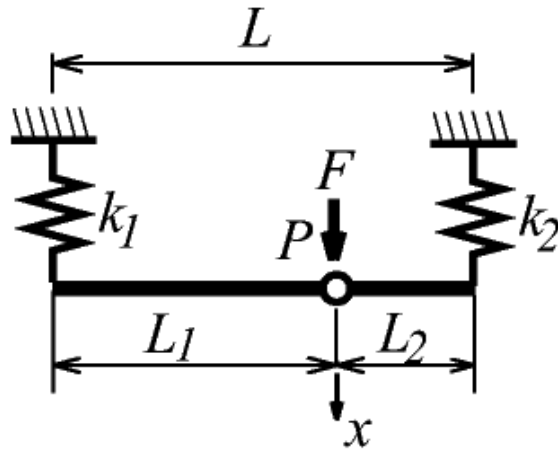


(d) Serial springs

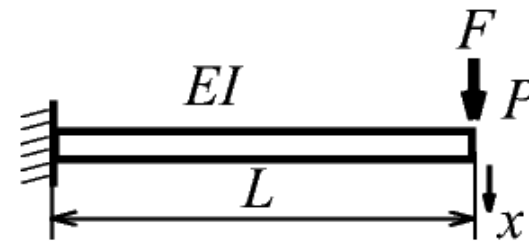


(e) Lever spring mechanism

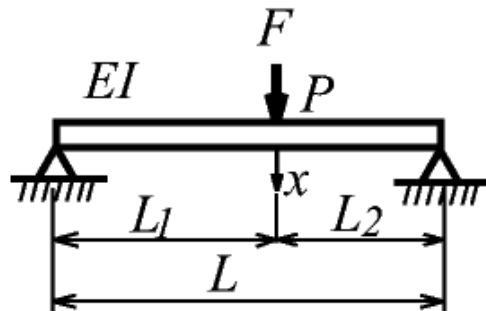
[Linear vibration system (3)]



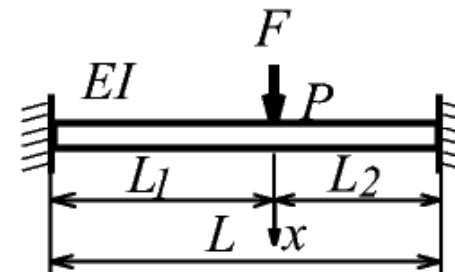
(f) Distributed spring mechanism



(g) Cantilever

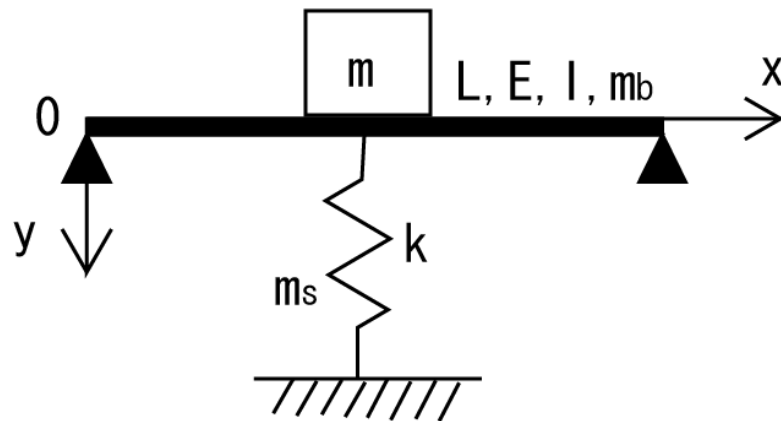


(h) Beam with simple support ends

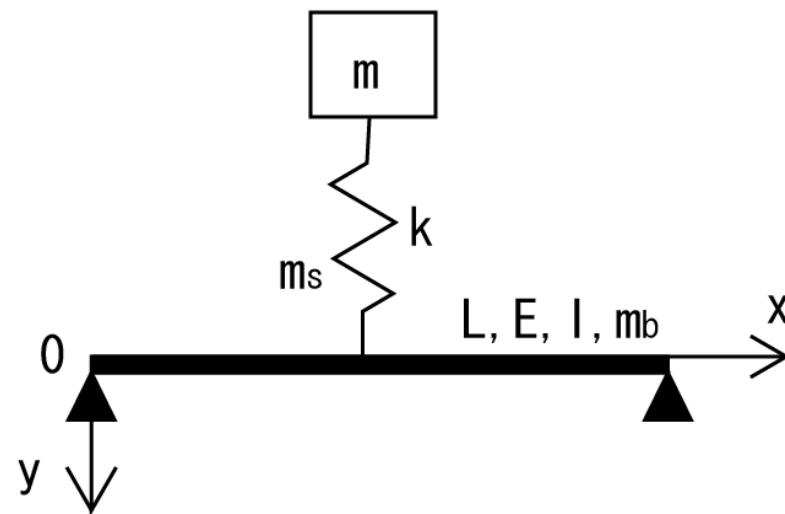


(i) Beam with fixed ends

[Linear vibration system (4)]



(j) Beam and spring 1



(k) Beam and spring 2