

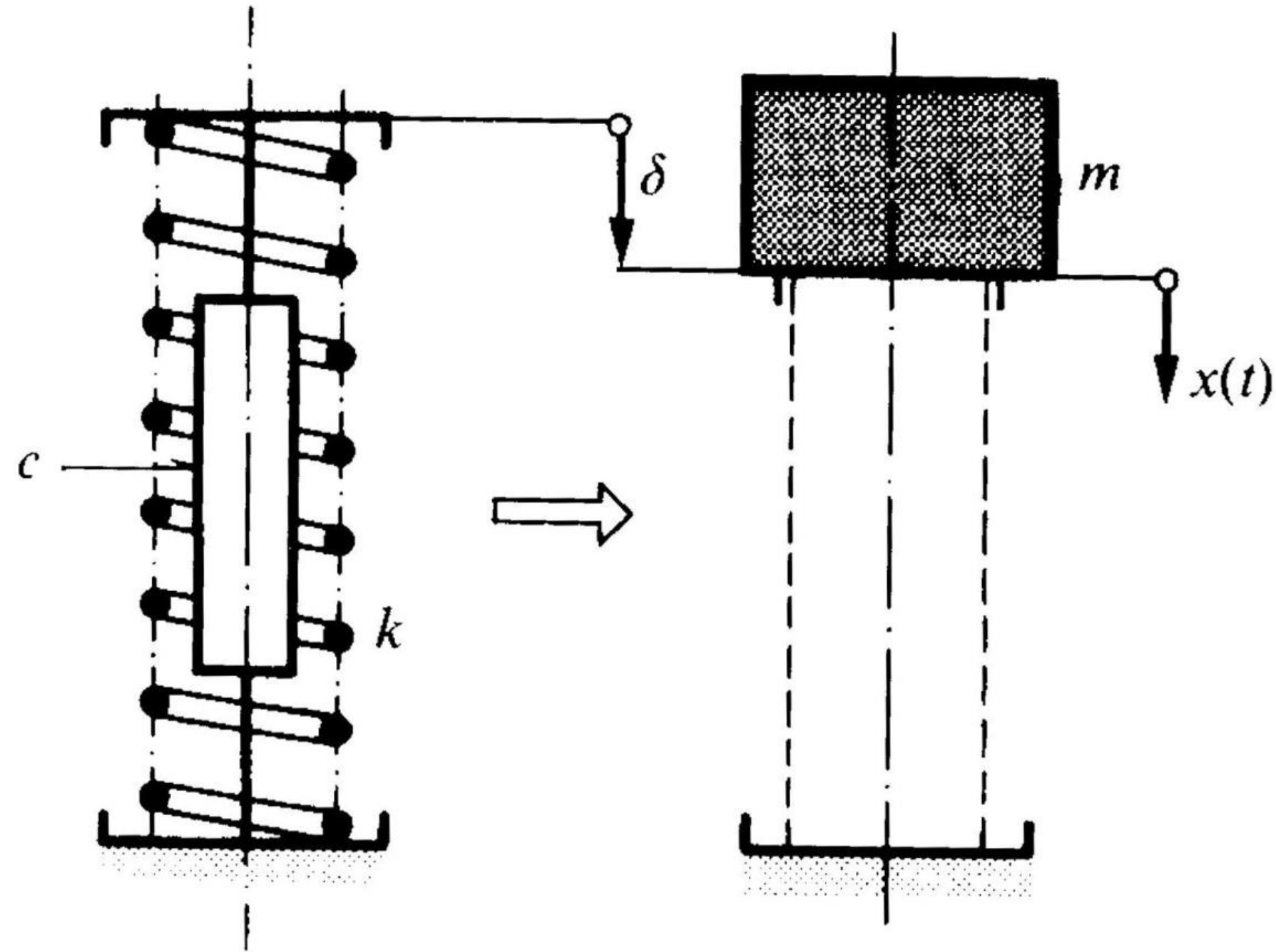
Leçon 2.2 – Exemples Oscillateur 1D Libre, Dissipatif

ME-332 – Mécanique Vibratoire

Prof. Guillermo Villanueva

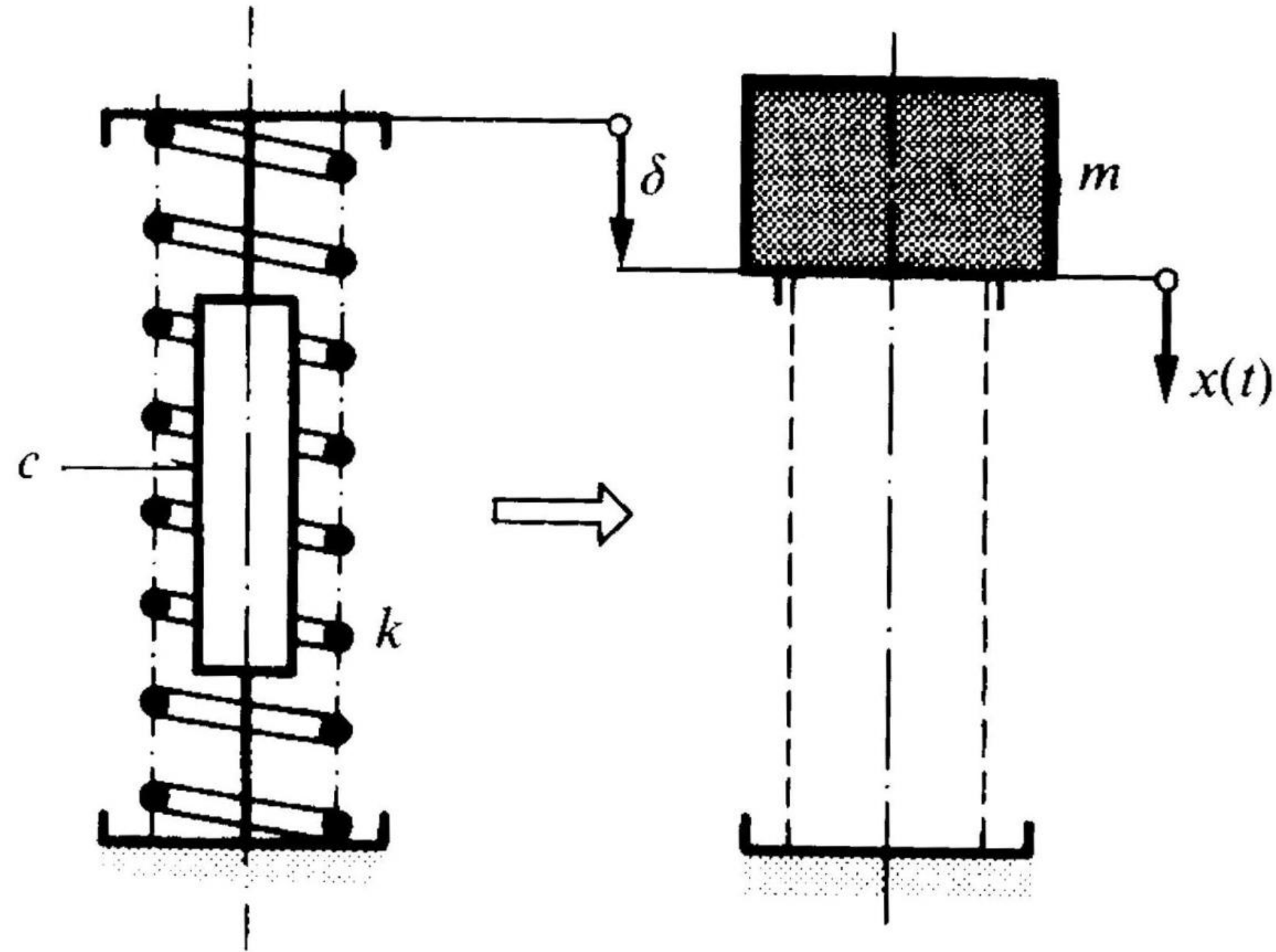
- 2 Exemples
- Calculer les éqs. de mouvement
- Calculer les caractéristiques

EPFL Exemple 2.1 – Calculer les caractéristiques



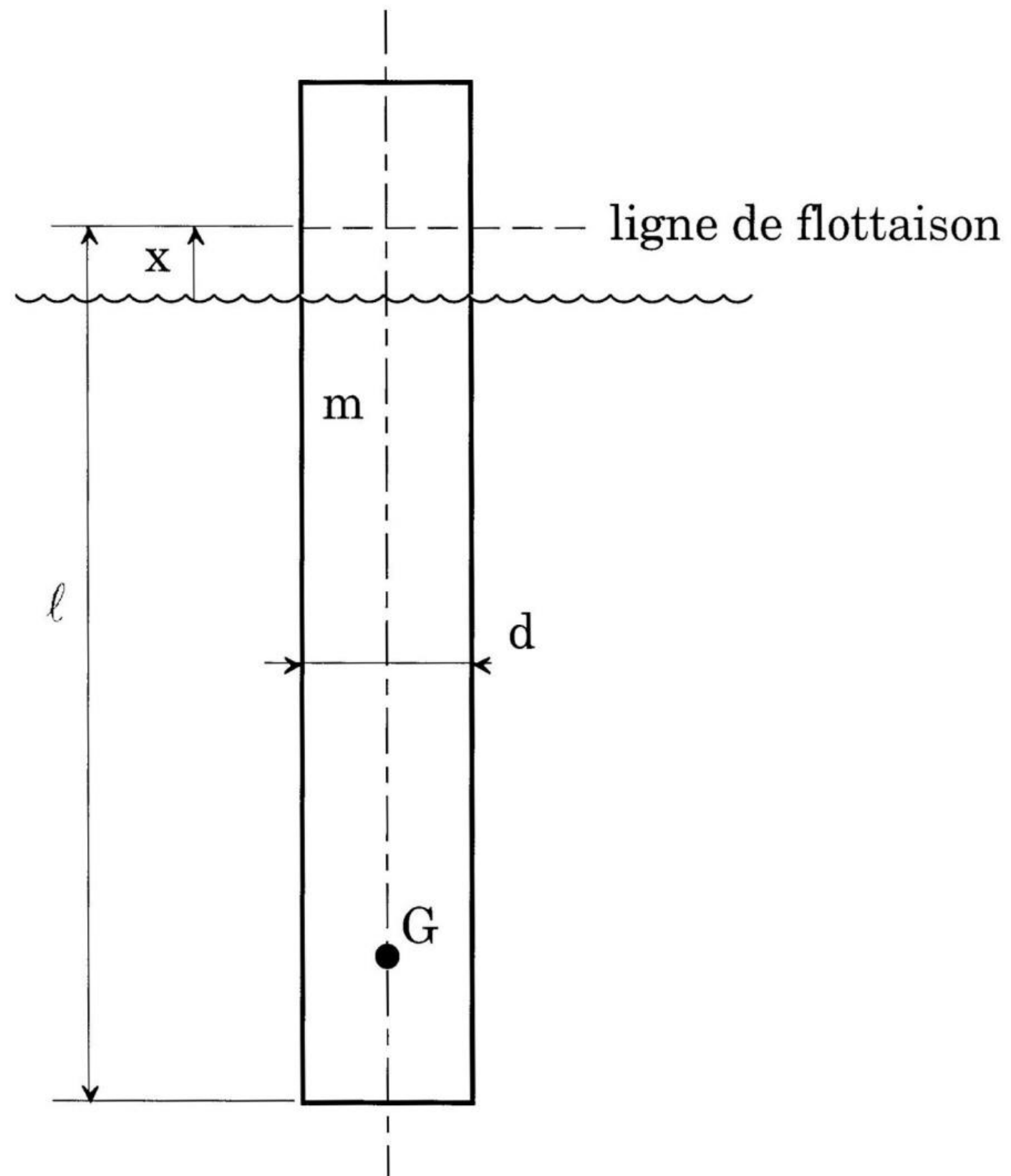
$$|\vec{g}| \approx \pi^2 \frac{\text{m}}{\text{s}^2}; \delta = 0.25 \text{ m}; f_1 = 0.8 \text{ Hz}; m = \frac{100}{\pi} \text{ kg}$$

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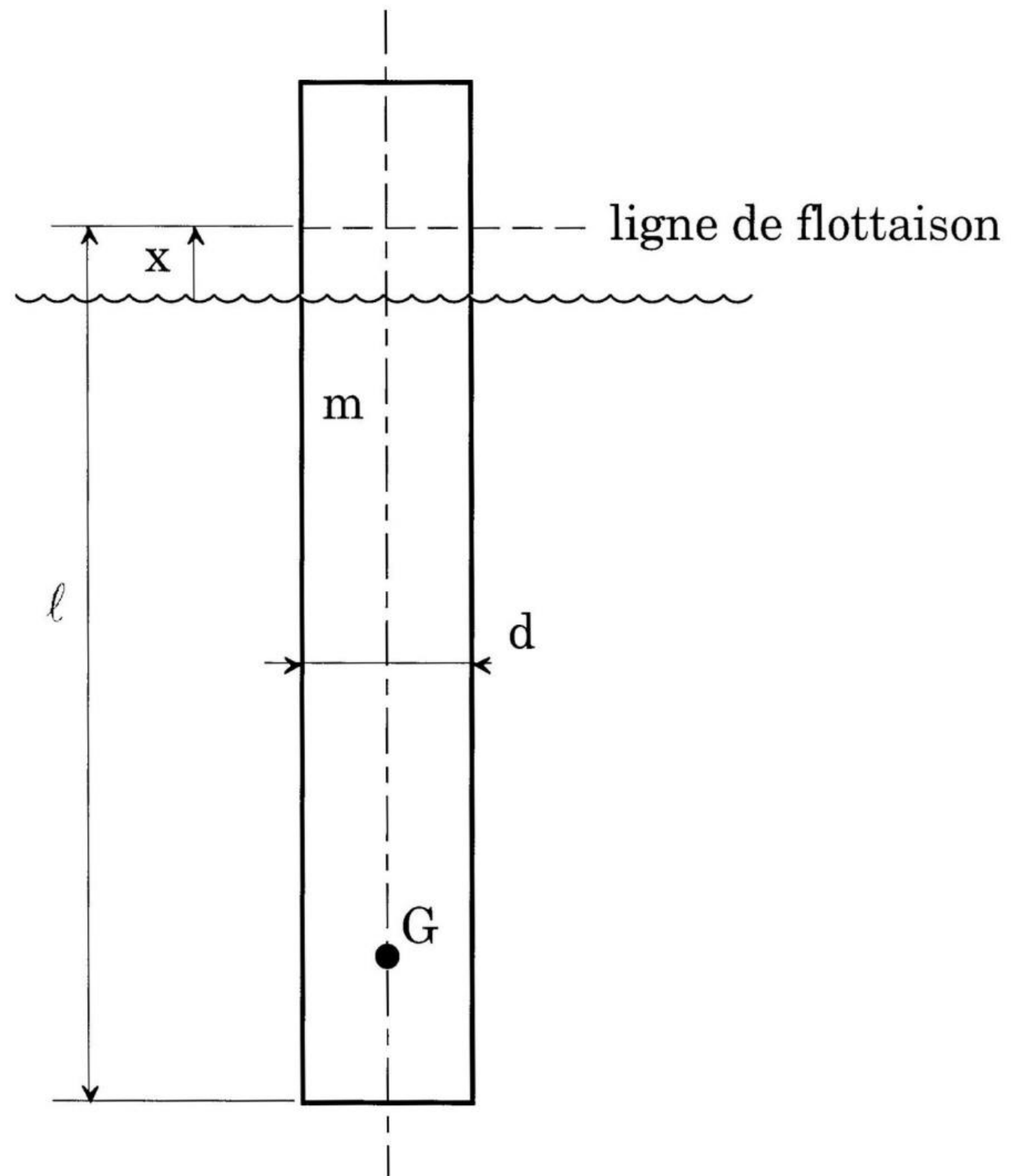
EPFL Exemple 2.2 – Bouée cylindrique



$$|\vec{g}| \approx \pi^2 \frac{\text{m}}{\text{s}^2}; \quad d = 0.1 \text{ m}; \quad m = 31.4 \text{ kg} \approx 10\pi \text{ kg};$$

$$\rho = 1000 \frac{\text{kg}}{\text{m}^3}; \quad x(0) = 0.3 \text{ m}; \quad x(T_1) = 0.2 \text{ m}$$

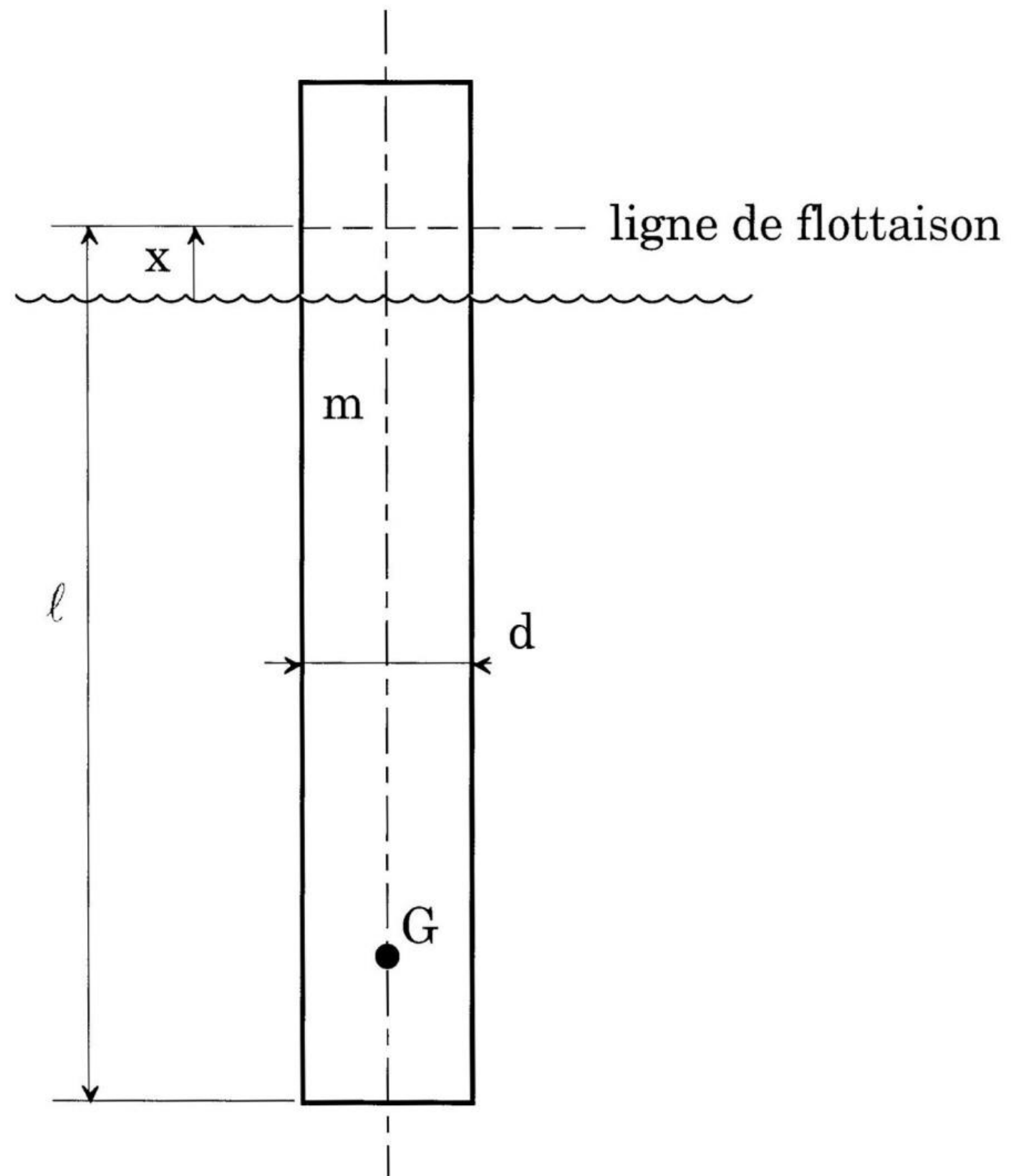
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