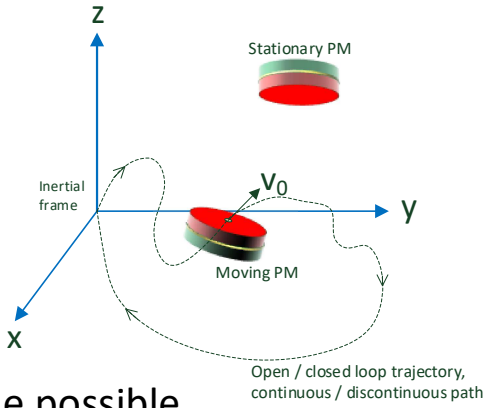
Asymmetric Incommensurable Torque (AIT) [9-12, 17]

$$\mathbf{F_{magE}} = q\mathbf{E} + \mathrm{q}\mathbf{v} \times \mathbf{B} + \nabla(\boldsymbol{\pi_C} \cdot \mathbf{E}) + \nabla(\boldsymbol{\mu_C} \cdot \mathbf{B})$$
$$\mathbf{F_{magA}} \approx \mathrm{q}\mathbf{v} \times \mathbf{B} + \nabla(\boldsymbol{\mu_C} \cdot \mathbf{B})$$
$$\mathbf{F_{mag}} \approx \mathrm{q}\mathbf{v} \times \mathbf{B}$$

$$W_{mag} = \oint \mathbf{F_{mag}} \cdot d\mathbf{l} \neq 0$$



(1) Magnetic field $\mathbf{B}$ is not a conservative field → work extraction in principle possible

(2) For quasi magnetostatic systems, $\mathbf{E} \to \mathbf{0}$, therefore a very good approximation is $\mathbf{F_{magA}}$, for many (but not all) systems, even the model for $\mathbf{F_{mag}}$ is sufficient

(3) For point charges W_{mag} is always zero, e.g., as $\oint q(\mathbf{v} \times \mathbf{B}) \cdot \mathbf{v_0} dt = 0$ – trajectory of a point particle with $\mathbf{v_0}$ is necessarily equal $\mathbf{v}$

(4) For area (2D) and volume charges (3D) – represented by (for example PMs), it can be unequal (as $\mathbf{v}$ might be different from $\mathbf{v_0}$)

(5) Generations of inventors have patented such machines, by using the facts from (1-4)…

Energy source – hypothesis [7,11]

- PM crystal structure is highly enriched with free electrons (or electron pairs)
- PM is deteriorating very slowly (e.g., its attraction and repulsion force gets weakened over time)
- This process may be regarded as a nonradioactive decay process [11]
- It may be modeled using the beautiful approach by R.L. Mills [13]

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