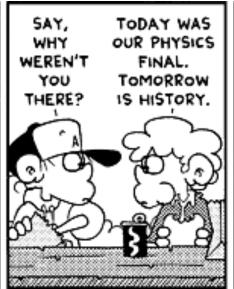■ **Theme Music: Count Basie & his Orchestra**

The Party's Over

Cartoon: **Bill Amend**

FoxTrot

Equations

- Total energy of a system (a set of macroscopic objects)

$$E = KE + PE + U$$

> Internal energy

- Exchanges of energy between the system and the rest of the universe

$$\Delta E = Q - W$$

> Work done by the system on "them"

- Exchanges of energy between the system and the rest of the universe ignoring coherent mechanical energy

$$\Delta U = Q - W$$