PHYSICS NOMENCLATURE IS PROBLEMATIC

Physics is difficult enough for many students, but physicists exacerbate the difficulties by perpetuating a lousy jargon, that is probably most problematic for those whose first language is not English. Most of the problems are easily erased because they are caused by an unnecessary adherence to historical accuracy.

(1) "*Interference Fringes*"
(i) By definition linear superposition precludes interference.
(ii) Fringes mean edges, not lines. Suggested alternative: "Superposition Lines"

(2) "*Specific Heat*"
Incorrect and confusing for students - insist on "Specific Heat Capacity"?

(3) "*Velocity of Light*"
c is not a vector - insist on "speed of light".

(4) "*Electromotive Force emf*"
Long known to be a misnomer but at least *emf* should be eliminated from the physics vocabulary. Possible alternative: "generated voltage *gv*".

(5) "*Dielectric Constant*"
This is not constant with respect to either temperature or frequency. Insist on "relative permittivity"

(5) "*Displacement Current dD/dt*"
dD/dt has the dimensions of current density. Electric current is correctly defined as a *translational* movement of electrical charge (historical analogy with flowing water), but *dD/dt* arises from *localized* dipole rotation or ion hopping between adjacent sites. I have no good alternative but perhaps Localized Current Density is an improvement.

(6) Newton's "Three Laws" are in fact just two, because the 1st and 2nd laws are the same. Surely Newton's achievements are not diminished by reducing his number of laws.

(7) Why GR and not SR? This is a minor semantic matter but is nonetheless inconsistent with physicist's reputation for logic.

(8) Undergraduates are taught to use the SI system of units (hallelujah!), but the real world of professional physicists rarely uses it. Physical chemists have long replaced the Angstrom with nm for wavelengths with no difficulty, and similarly in electromagnetism the Coulomb has long replaced the cgs units esu and emu, so the effort is not insuperable. Light years, parsecs, Debye for dipole moments, etc. can surely all be replaced by a suitable SI prefix.