

Re: Is F=ma a definition or not?

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From: Mike (*eleatis_at_yahoo.gr*)

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Franz Heymann wrote:

[snip]

>

> *It sounds as if it is irrelevant to what has been discussed so far.*

>

Maybe not.

>

> *Newton's laws actually do not apply in the case of any planetary*

> *orbits. It is only in the case of the elliptical orbits that the*

> *deviation from Newtonian orbits can be observed.*

How so? $F = GMm(g)/r^2 = dp/dt = m(i)d^2r/dt^2$

$m(g)$ = gravitational mass, $m(i)$ = inertial mass. Most of Eotvos based EP tests are based on this equation. This equation holds to 1 part in 13 trillion in the case of elliptical orbits near the surface of earth, which is exactly what a free-falling particle path is.

> *No, I can not. However, I do know that in the weak limit, GR and*

> *Newton make the same predictions.*

This contradicts what you said before. The motion of the Moon around the Earth is virtually weak limit.

> *You're just bragging now.*

Physics is bragging out?

> > *Remember: force is the only foundation of physics around,*

>

> *No.*

Yes, it is. Force is the only foundation of physics known today, ask any physicist how he knows what he's talking about. Have you heard of the

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great effort to unite the four fundamental forces?

> *>No force, no motion, period.*

>

> *Bollocks. What happened to Newton's first law?*

Partly correct you are. I should have said "change in motion". Listen, deviations from geodesic motion in GR is absolute motion. GRists hide their face in the sand. Space-time in GR is no less absolute than Newton's absolute space. No progress has been made with GR towards a relational dynamics. It's all the same religion as Newtonian absolutism. Newton's last book was about the Bible, not physics. He insisted that all motion is due to God and that his laws did not explain anything. He was honest I say. False assurances small minded brainwashed phycisists of all kinds offer these days to assymetrically informed students who can only become victims of OTC stock brokers or a cheating wife from an ex eastern block country, in the best case, but never understand the foundational problems of physics.

Mike

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> *[snip]*

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> *Franz*