

## Re: Noether's Theorems (1918) in English translation

**Source:** <http://sci.tech-archive.net/Archive/sci.physics.relativity/2005-03/3266.html>

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**From:** N:dlzc D:aol T:com \ (dlzc) (net\_at\_nospam.com)

**Date:** 03/14/05

Date: Mon, 14 Mar 2005 07:17:43 -0700

Dear Ken S. Tucker:

"Ken S. Tucker" <dynamics@vianet.on.ca> wrote in message  
news:1110788302.252439.279250@z14g2000cwz.googlegroups.com...

> N:dlzc D:aol T:com (dlzc) wrote:

>> Dear Ken S. Tucker:

>>

>> "Ken S. Tucker" <dynamics@vianet.on.ca> wrote in message

>> news:1110740453.988903.85210@z14g2000cwz.googlegroups.com...

>> > Tom Roberts wrote:

>> >

>> >> *But the planets in the solar system do NOT do*

>> >> *that (e.g. perihelion shift of mercury and other*

>> >> *objects).... And the binary pulsars certainly*

>> >> *do not do that (they are observed to be*

>> >> *spiraling in, in agreement with predictions*

>> >> *of GR)....*

>> >

>> >> *Adding a "grain of salt", a well studied*

>> >> *system is the Earth-moon, where we find*

>> >> *the Moon receding from Earth (~3cm/year)*

>> >> *and Earths rotation decreasing by,*

>> >> *.0018 sec/century.*

>> >> *This deposits ~75 megatons (TNT) of energy*

>> >> *into the earth daily,*

>>

>> *And you are sure you are clear on the \*sign\**

>> *right? The loss of momentum is from the*

>> *Earth to the Moon. There is a net energy*

>> *\*conversion\* by the Earth, which radiates*

>> *excess energy (in general) to the depths*

>> *of space.*

>

> *Yes, that same energy input just killed 150,000*

> *people.*

This was a change in potential → kinetic → frictional losses.  
It was a \*loss\* of energy, not a "deposit" of energy. The crust subducted.

>> > *which is ultimately*  
>> > *heating the Earth and is emitted as EM*  
>> > *radiation (as heat).*  
>> > *We find gravitational orbital change being*  
>> > *converted to EM-radiant energy from a binary*  
>> > *system consistent with Newton.*  
>>  
>> *The Earth should have a net decrease in energy, not a gain.*

> *I recommend your begin a new thread on this subject.*  
> *I further recommend you acquaint yourself with Earth-*  
> *Moon dynamics, taking into account the conservation*  
> *of angular momentum that renders the receding moon*  
> *and the slowing Earth rotation, those are facts.*

Angular momentum transferred to the Moon, from the Earth, via tides, is a loss of energy by the Earth. NOT a "deposit". A withdrawal (in more ways than one).

> *You should also calculate the rate of energy imparted*  
> *to the Earth by the Moon, that is rather evident in*  
> *the motion of water aka tides.*

The motion of the water "deposits" energy & momentum to the Moon, dude.

> *I've posted that, but I don't want to spoil your*  
> *fun by giving you an an answer.*  
>  
> *You deserve the pleasure of that solution.*

I've already been there. Maybe you can finally get it.

David A. Smith