

Re: Anomalous "memory" effects

Source: <http://sci.tech-archive.net/Archive/sci.physics/2006-05/msg02489.html>

- *From:* "Dirk Van de moortel" <dirkvandemoortel@xx>
 - *Date:* Thu, 25 May 2006 12:27:38 GMT
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<top9@xxxxxxxx> wrote in message
news:1148558768.259629.120740@xx

http://www.oswirus.krakow.pl/cat_14/gyroscope/

A symmetric harnessed gyroscope accelerated to a given spinning frequency takes different time periods to stop, depending on the direction of previous spins. For repeated alternating, anticlockwise and clockwise spinning, the rotation period in both directions significantly increases, which is not the case when the gyroscope is repeatedly rotated in the same direction. Using the measurements it was observed, that the time of gyroscope's rotation was significantly lengthened or shortened, what indicates that it either increased or decreased the movement resistance of the gyroscope. The presented experimental results suggest the existence of anomalous movement resistance and demonstrate that a fixed spinning gyroscope displays unusual history-dependent movement resistance effects. The effect is real, large, reproducible and does not follow from experimental errors.

The manuscript was reviewed thrice, according to the publishing procedure in "Physical Review Letters" within two year. The remarks of all the reviewers were taken into account during its correction. Because the publishing procedure for our manuscript in "Physical Review Letters" finished, we decided to publish it in Journal of Technical Physics, J.Tech. Phys., 46, 2, 107-115, 2005.

When polishing a surface, do we always rub in the same direction, or do we alternate the rubbing directions as much as we can? It seems to me that the latter approach gives a much better result, i.e. a smoother surface, which in turn gives less friction.

Dirk Vdm