

Re: Instantaneous radius of a rotation

Source: <http://sci.tech-archive.net/Archive/sci.physics/2007-01/msg01341.html>

- *From:* "Atreides" <devrim.erdem@xxxxxxxxxx>
 - *Date:* 14 Jan 2007 15:13:44 -0800
-

But it is unnecessary. If the trajectory is $u(t)$, the

acceleration is $u''(t)$, and the required force is $\mu''(t)$. The reaction (centrifugal) force is just opposite this.

Is that what you were after?

You are right. But this is only the magnitude of the force.

Imagine that we have an aircraft, its nose is pointing in the sky (e.g. pitch angle of 10 degrees) and it starts to bank for a turn.

The question is:

What is the direction vector of the centrifugal force ?

.