

Week 53 (9/15/03)

**Circles on the ice**

A puck slides with speed  $v$  on frictionless ice. The surface is “level”, in the sense that it is perpendicular to the direction of a hanging plumb bob at all points. Show that the puck moves in a circle, as seen in the earth’s rotating frame. What is the radius of the circle? What is the frequency of the motion? Assume that the radius of the circle is small compared to the radius of the earth.