998-55-97 **Jesus Gonzalez\*** (jesus@math.cinvestav.mx), Dr. Jesus Gonzalez Espino Barros,

Departamento de Matematicas, CINVESTAV, Apartado Postal 14-740, 07000 Mexico City, Mexico.

Topological robotics in lens spaces: an approach to the immersion problem for real projective spaces.

Estimates are given for the topological complexity (TC) of lens spaces in terms of certain generalized "skew" maps between spheres. This last concept turns out to be closely related to that for a generalized axial map developed by Luis Astey, Donald M. Davis and the author to characterize the smallest Euclidean dimension where (2-torsion) lens spaces can be immersed. As a result, this suggests an alternative simpler "TC-approach" to the classical immersion problem for real projective spaces, whose initial stages are settled by means of techniques in obstruction theory. (Received February 14, 2004)