

Tuesday, January 20, 2009

4:00 pm

in Room 303 MAE-A

## An approximation to the state of the art in mobility theory

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### Abstract

It is presented an approximation to the state of the art in the determination of the degree of freedom of kinematic chains, parallel platforms and multi-loop linkages with arbitrary architecture, the computation of the degrees of freedom of these devices is also known as mobility theory. Two approaches, one based on screw theory and one based on displacement groups are outlined. Some areas of further research are outlined.

### Biography

José M. Rico earned a B. Sc. degree at Instituto Tecnológico de Celaya, México, in 1974, and a M. Sc. degree at Instituto Tecnológico y de Estudios Superiores de Monterrey, México, in 1977, both in Mechanical Engineering. In 1988, he earned a Ph.D. degree in Mechanical Engineering at the University of Florida, with a minor in mathematics, under the direction of late professor Joseph Duffy. From 1975 to 2005, He was affiliated with the Mechanical Engineering Department at the Instituto Tecnológico de Celaya, since 2005 he is affiliated with the Mechanical Engineering Department at the University of Guanajuato, México. He has authored close to 40 papers in indexed journals, and about 60 papers in conference proceedings. He has advised 15 M. Sc. students and a one Ph.D. student. Currently, he is associated editor of the ASME Journal of Mechanical Design and Member of the Mexican Research System. He received a best paper award in theoretical kinematics in the ASME Design Engineering Technical Conference in 2007 and an honorary mention in the same field in the ASME Design Engineering Technical Conference in 2004.

*Refreshments served in 303 MAE-A beginning at 3:50 pm*

