

## **abstract**

WORKSHOP ON TOPOLOGY: IDENTIFYING ORDER IN COMPLEX SYSTEMS

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

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This will be a report on topics related to topological complexity (TC), introduced by Michael Farber in 2003 as a numerical measure of the complexity of robot motion planning problems. TC of real projective space  $P^n$  (lines through the origin in Euclidean  $n+1$  space) coincides with the Euclidean immersion dimension of  $P^n$  for  $n$  different from 1, 3 and 7. For symmetric TC of  $P^n$ , there is a close relation to the Euclidean embedding dimension of  $P^n$ , currently under study. Joint work with Jesus Gonzalez.