

Faculdade de Ciências da Universidade de Lisboa
cmafcio@fc.ul.pt Tel. (+351) 21 750 00 27

SEMINÁRIO DE GEOMETRIA

Dia 27 de Maio (sexta-feira), às 13H30, na sala 6.2.33

Crossed modules and 2-dimensional homotopy invariants of knotted surfaces in the 4-sphere

João Faria Martins
(CMA e FCT/UNL)

Abstract:

Motivated by recently discovered connections to topological phases of matter of condensed matter Physics / topological quantum computing, I will describe work I have done some years ago on invariants of knotted surfaces embedded in the 4-sphere derived from finite crossed modules. I will also report on oneiric (at this moment) extensions of this framework to Lie crossed modules invariants of knotted surfaces, to be addressed in the realm of gerbes and categorified BF-theories.

Seminário financiado por Fundos Nacionais através da FCT – Fundação para a Ciência e a Tecnologia no âmbito do projeto UID/MAT/04561/2013