

abstract

MEMBERS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Most known smoothable simply connected 4-manifolds admit infinitely many different smooth structures (distinguished, for example, by Seiberg--Witten invariants). There are some 4-manifolds, though, for which the existence of such 'exotic' structures is still open, the most notable examples being the 4-dimensional sphere S^4 and the complex projective plane CP^2 . In a recent project with Z. Szabo and J. Park we found constructions of exotic smooth structures on the five- and six-fold blow-up of CP^2 . In the lecture we describe the construction of these 4-manifolds and indicate the necessary input from Seiberg--Witten theory for proving their exoticness.