

## ICMS-IMSA Working Seminar

August 20, 2021

ICMS, Room 403, 4:30-6:30 pm

**Title:** *On determinantal cubic hypersurfaces (after Iliev-Manivel, Beauville,...)*

**Speaker:** Prof. R. Mboro IMSA, ICMS, 4:30-5:30 pm

**Abstract:** We give an account of the problem of writing an equation of a cubic (or other degree) hypersurface  $X$  as a (kind of) determinant of a matrix with homogeneous entries. Expressing the equation of  $X$  as a determinant is equivalent to produce an arithmetically Cohen-Macaulay vector bundle on  $X$ . The talk will focus on the cases of cubic hypersurfaces of dimension at most 8.

**Title:** *Quantum representations of fundamental groups of curves with infinite image*

**Speaker:** Prof. R. Aguilar IMSA, ICMS, 5:30-6:30 pm

**Abstract:** We will report on some results due to Koberda-Santharoubane that show that an element of  $\pi_1(P^1 - 3 \text{ points})$  has an infinite order under some quantum representations of the mapping class group.

The lectures will be held in hall **403** of the Institute of Mathematics and Informatics.