



Seminar Title

“Some topics in modern algebraic number theory”

Speaker: Prof. Nadir Matringe. (University of Poitiers, Mathematics and Applications Laboratory, France)



Date/Time: Monday February 14, 2022

4:00 PM - 5:00 PM

Abstract

Algebraic number theory is one of the most ancient topics in mathematics, going at least back to the Babylonians. It studies algebraic numbers, which are solutions of polynomial equations with integral coefficients. It is still nowadays one of the most active area of research in fundamental mathematics, at the crossroad of many branches of the mathematical tree. One of the central research programs in number theory is that imagined by the Canadian mathematician Robert Langlands in the late 60's. It relates number theory to representation theory, another field of fundamental mathematics which studies algebraic structures called groups, in an unexpected and striking manner. I will give an introduction to some of its ideas, and finish by stating a result of mine in the field, proving the equality of two L functions, one

attached to Galois representations (of number theoretical nature) and one to automorphic representations (of representation theoretical nature).