Christine Bachoc
Université Bordeaux
"The chromatic number of Euclidean space, unit distnace graph realizations, and linear programming"

Abstract:

The chromatic number of Euclidean space is the least number of colors needed so that points at distance exactly one receive different colors. This number is surprisingly difficult to determine; for the plane, it is only known to lie between 4 and 7. In this talk we will discuss recent estimates of the closely related measurable chromatic number (for which the color classes are required to be measurable) that arise from linear programming.