CCSU

DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

Friday, October 11
3:00 – 4:00 PM
Maria Sanford, Room 101

SOME APPLICATIONS OF COMPLEX NUMBERS IN GEOMETRY

NELSON CASTANEDA

CENTRAL CONNECTICUT STATE UNIVERSITY

Abstract: First, we discuss how some basic classical theorems of Euclidean geometry can be interpreted or proved using operations with complex numbers. Next, we discuss the group of isometries of the Euclidean plane, the basic properties of linear fractional transformations, their application in understanding the definition of distance in the Poincaré model of the hyperbolic plane, and the determination of the group of isometries of that geometry. Other applications involving curvatures of plane curves and surfaces could be discussed if time permits.

To join us online use the following link: https://ccsu.webex.com/meet/gotchev
For further information: gotchevi@ccsu.edu; 860-832-2839; http://mathcolloquium.sites.ccsu.edu/