

**CCSU**  
**DEPARTMENT OF MATHEMATICAL SCIENCES**  
**MATH CLUB AT CCSU**

# **COLLOQUIUM**

Friday, November 7  
2:00 – 3:00 PM  
Maria Sanford, Room 101

## **ON A PROPERTY OF CURVES IN THE PLANE**

**MOHAMMAD JAVAHERI**

**TRINITY COLLEGE**

### **ABSTRACT**

Let  $\gamma:[0,1]\rightarrow[0,1]^2$  be a continuous curve such that  $\gamma(0)=(0,0)$  and  $\gamma(1)=(1,1)$ . We show that, for each  $n$ , there exists a sequence of distinct points  $P_i$ ,  $i=1,\dots,n$ , on the curve such that the sequences  $\pi_1(\overrightarrow{P_i P_{i+1}})$  and  $\pi_2(\overrightarrow{P_i P_{i+1}})$  are the same up to order, where  $\pi_1$  and  $\pi_2$  are projections on the coordinate axes. The proof in a basic case, related elementary problems, and the sketch of the proof of the general statement will be discussed.

***For further information:***

[gotchevi@ccsu.edu](mailto:gotchevi@ccsu.edu) 860-832-2839

<http://www.math.ccsu.edu/gotchev/colloquium/>