#### **CCSU** DEPARTMENT OF MATHEMATICAL SCIENCES

# COLLOQUIUM

Friday, February 19 2:00 – 3:00 PM Maria Sanford, Room 101

## RECIPROCITY LAWS IN PUTNAM PROBLEMS

## **MARIAN ANTON**

#### CENTRAL CONNECTICUT STATE UNIVERSITY

<u>Abstract</u>: Modular arithmetic opens up a new world of mathematics that explores discrete periodic phenomena. In this talk we will expose undergraduate students to the beauty of Gauss's reciprocity law and walk through one of its proofs. Basic group theory suffices to follow the arguments. Then we will illustrate the lessons learned by solving some of the problems from past Putnam competitions.

> For further information: <u>gotchevi@ccsu.edu</u> 860-832-2839 http://www.math.ccsu.edu/gotchev/colloquium/