CCSU DEPARTMENT OF MATHEMATICAL SCIENCES

COLLOQUIUM

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

GROUP ACTIONS ON FINITE SETS AND THEIR RATIONAL REPRESENTATIONS

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Abstract: Motivated by topology, we will describe the Burnside ring of a finite group G and the canonical map to the ring of rational representations of G. Based on the work of Tornehave, we describe the kernel and the image of this map and we generalize this study to finite sets with a free action by another group H. In particular, we present some partial results in collaboration with Eric Kahn and formulate some open questions. The talk is accessible to students familiar with groups and vector spaces.

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