Speaker: Dr. **Rong Luo** (West Virginia University)  
Title: **Modular flows and integer flows of signed graphs**

Abstract:

Converting modulo flows into integer-valued flows is one of the most critical steps in the study of integer flows. Tutte and Jaeger’s pioneering work shows the equivalence of modular flows and integer-valued flows for ordinary graphs. However, such equivalence does not hold any more for signed graphs. In this talk I will talk about how to convert modular flows into integer-valued flows for signed graphs and their applications in the study of Bouchet’s 6-flow conjecture.

Rong Luo is a Professor in the Department of Mathematics at West Virginia University. Prior to joining WVU, He was employed by Middle Tennessee State University as an Assistant Professor of Mathematics in 2002 and was promoted to Associate Professor in 2007 and Professor in 2011. He obtained his Ph.D. in Mathematics at West Virginia University in 2002 under the supervision of CQ Zhang. His research lies in graph theory, combinatorics, combinatorial matrix theory, and applications.