

UGA Algebra Seminar-April 7, 2008

Speaker: Wenjing Li (UGA)

Title: Non-Associative Binary Algebraic Structures

Abstract: Right quasigroups and quandles are non-associative binary algebraic structures. The interest here is representation of quandles. We prove that for every homogeneous quandle Q , there exists a triple (G, H, s) that is isomorphic to Q , for H a subgroup of a group G where an automorphism s of G fixing H pointwise is needed to describe the quandle operations on $H \backslash G$. We define quandle cohomology groups and discuss how the quandle 2-cocycle condition is related to knot invariants.