



FMSP Lectures

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A bridge between knotted graphs and
axiomatizations of groups

September 19 (Friday) 14:30 ~ 16:00 Room 128

Abstract:

This talk will be devoted to a new algebraic structure called qualgebra. From the topological viewpoint, our construction is motivated by a study of knotted 3-valent graphs via combinatorially defined coloring invariants. From the algebraic viewpoint, it gives a part of an alternative axiomatization of groups, describing the properties of the conjugation operation and its interactions with the group multiplication. Explicit examples of qualgebras and associated graph invariants will be given.