

Title: Boundary links, localization and the Kontsevich integral.

Abstract: The Kontsevich integral of a boundary link, graded by loops rather than by degree, is an invariant of trivalent graphs decorated by formal power series in noncommuting variables. We will discuss how this naturally leads to a Localization Property of the Kontsevich integral, that is, a lift that takes values in trivalent graphs decorated by elements of the *Cohn localization* of the group ring of the free group. We will also discuss a proof of the above mentioned Localization Property (using various ideas from the theory of finite type invariants) as well a special case of the Localization Property, namely the “wheels part” of the Kontsevich integral and its expression in terms of classical nonabelian algebraic topology.