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1000-57-97 **Jozef H Przytycki*** (przytyck@gwu.edu), Department of Mathematics, GWU, 1922 F Street NW, Old Main building, Washington, DC 20052, and **Marta M Asaeda** and **Adam S Sikora**.

Kauffman-Harary Conjecture for Montesinos links and closed 3-braids.

L.Kauffman and F.Harary have conjectured that for any reduced alternating diagram K of a knot with a prime determinant p, every non-trivial Fox p-coloring of K assigns different colors to its arcs. We generalize this conjecture by stating it in terms of homology of the double cover of S^3 branched along a link. The Generalized Kauffman-Harary (GKH) Conjecture: If D is an alternating diagram of a prime link without nugatory crossings then different arcs of D represent different elements of $H_1(M_L^{(2)}, Z)$ (in the Fox presentation of the group). We prove GKH Conjecture for "visibly" alternating Montesinos links (we need a diagram to be alternating in its Montesinos decomposition) and for alternating closed 3-braids (so of the form $\sigma_1^{a_1}\sigma_2^{-b_1}...\sigma_1^{a_n}\sigma_2^{-b_n}$, $a_i, b_i > 0$). The case of 3-braids allows us to test the idea of using Menasco work on incompressible surfaces in exterior of alternating links to GKH Conjecture (incompressible surfaces in exterior of a closed 3-braid and its double branched cover, a punctured torus bundle over S^1, were classified by Hatcher, Floyd, Lozano and Przytycki). (Received August 19, 2004)