

A new invariant for semi-arithmetic Fuchsian groups

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The class of arithmetic Fuchsian groups have been extensively studied over the past decades due their remarkable properties. Another important class of Fuchsian groups with arithmetic flavor is formed by discrete hyperbolic triangle groups. Although the intersection of these classes is finite, they share a set of properties that motivated Shmutz Shaller and Wolfart to define the class of semi-arithmetic Fuchsian groups. In this talk I will present a new numerical invariant defined for any semi-arithmetic group which provides a finiteness result, generalizing some known finiteness results for both arithmetic and triangle groups to semi-arithmetic groups. If time permits, I will show a quantitative form for this finiteness. The results discussed in my talk are contained in a set of papers written or in preparation in collaboration with M. Belolipetsky, G. Cosac, N. Paiva and G. Teixeira Paula.

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