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Alexandru Dimca, Laboratoire J.A. Dieudonné, Université de Nice Sophia-Antipolis, Parc Valrose, 06108 Nice, France, and **Alexander I. Suci*** (a.suciu@neu.edu), Department of Mathematics, Northeastern University, Boston, MA 02115. *Which 3-manifold groups are Kähler groups?*

Every finitely presented group G can be realized as the fundamental group of a (smooth, compact, connected, orientable) 4-dimensional manifold. Requiring that G be the fundamental group of a Kähler manifold, or that of a 3-manifold, is very restrictive. A natural question—raised by Donaldson, Goldman, and Reznikov in the 1990s—is then: What if both conditions are required to hold? I will show how to answer this question, using to a large extent techniques coming from arrangement theory. (Received January 28, 2008)