

1086-20-1813 **David E. Peifer*** (dpeifer@unca.edu), Department of Mathematics, UNC Asheville, Asheville, NC 28804-8511. *One Hundred Years of Infinite Group Theory: The Legacy of Max Dehn.*

One hundred years ago, in 1912, Max Dehn published a pivotal paper in which he states the word problem, conjugacy problem, and isomorphism problems for groups given by presentations. In many ways it is that paper that marks the beginning of infinite group theory. Already in 1912, Dehn had made important connections between infinite groups, geometry, and decidability. In the 1912 paper, Dehn solved the conjugacy problem for the surface groups by using ideas from hyperbolic geometry. In this talk, I will briefly explain how Dehn's work has influenced recent ideas in geometric group theory, such as M. Gromov's hyperbolic groups and W. Thurston's automatic groups. (Received September 24, 2012)