1135-20-69   **Ruth Charney*** (`charney@brandeis.edu`), Department of Mathematics, MS 050, Brandeis University, 415 South St., Waltham, MA 02453. *Searching for Hyperbolicity.*

While groups are defined as algebraic objects, they can also be viewed as symmetries of geometric objects. This viewpoint gives rise to powerful tools for studying infinite groups. The work of Max Dehn in the early 20th century on groups acting on the hyperbolic plane was an early indication of this phenomenon. In the 1980's, Dehn's ideas were vastly generalized by Mikhail Gromov to a large class of groups, now known as hyperbolic groups. In recent years there has been an effort to push these ideas even further. If a group fails to be hyperbolic, might it still display some hyperbolic behavior? Might some of the techniques used in hyperbolic geometry still apply? The talk will begin with an introduction to some basic ideas in geometric group theory and Gromov's notion of hyperbolicity, and conclude with a discussion of recent work on finding and encoding hyperbolic behavior in more general groups. (Received July 18, 2017)