1046-03-1054 **Jennifer Chubb*** (jennifer.chubb@gmail.com), Dept. of Mathematics, Monroe Hall, Room 240, 2115 G St. NW, Washington, DC 20052. *Countable groups and their orderings.*

The collection of orderings of a countable group may be represented as the paths of a subtree of the full binary tree. The properties such trees may have vary with the group and the type of orderings considered. I will survey some results on topological and algorithmic properties of the collection of orderings of countable groups. Buttsworth gave an example witnessing that the collection of bi-orderings of a countable group may be exactly countably infinite, so the corresponding tree has countably many paths. This is impossible for any collection of left-orderings of a group. A group is computable if there are algorithms for determining the group elements and for computing the group operation, and an ordering is computable if there is an algorithm that will determine when a group element is positive. Downey and Kurtz gave an example of a computable abelian group admitting no computable ordering of its elements, so the corresponding tree has no computable paths. (Received September 14, 2008)