1050-52-40 **Robert Connelly*** (connelly@math.cornell.edu), Department of Mathematics, Malott Hall, Cornell University, Ithaca, NY 14853, and **Walter J Whiteley** (whiteley@mathstat.yorku.ca), Department of Mathematics and Statistics, York University, Toronto, Ontario M3J 1P3, Canada.
Global Rigidity.

Given a configuration of points and some of the pairwise distances between them in Euclidean space, when does this determine the configuration uniquely? Thinking of the configuration as joints of a bar framework, when the configuration is determined uniquely, we say it is globally rigid. We show how the process of coning in the next higher dimension preserves the property of generic global rigidity. (Received February 08, 2009)