962-57-683   **Richard Randell*** (`randell@math.uiowa.edu`), Department of Mathematics, University of Iowa, Iowa City, IA 52242. *Milnor fibers of hyperplane arrangements.* Preliminary report.

A central arrangement of hyperplanes is a finite collection of codimension one subspaces of a complex vector space. Associated to each hyperplane one has a linear form; the product of these forms is the projection map of a fiber bundle with total space the complement of the arrangement, base space the non-zero complex numbers, and (Milnor) fiber a smooth manifold with interesting structure. Here we use the geometry of this manifold to analyze its homotopy type, and the homotopy of the arrangement complement. (Received September 20, 2000)