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Richard Randell* (randell@math.uiowa.edu), Department of Mathematics, University of Iowa, Iowa City, IA 52242. *Configurations of points in R^3 .*

We consider the space $C(n)$ of n -tuples of points in three-space, no four of which lie on a plane. Our main interest is the collection of path components of this space, and their adjacency relationships. The configuration space $C(n)$ may be studied via Plucker-type relations and also via iterated "fibrations" with the tools of arrangement theory. Further, several constructions permit the assignment of polynomial type invariants (Kauffman bracket, Jones) to path components of $C(n)$. (Received February 20, 2006)