1041-82-1 **Richard Kenyon***, Brown University. *Branched polymers.*

This is joint work with Peter Winkler. In this talk, a branched polymer will be a connected configuration of non-overlapping unit balls in Euclidean space. Building on and from the work of David Brydges and John Imbrie, we presents an elementary calculation of the volume of the space of branched polymers of order n in two and three dimensions. Our development reveals some more general identities, and allows a simple algorithm for exact random sampling. (Received April 11, 2007)