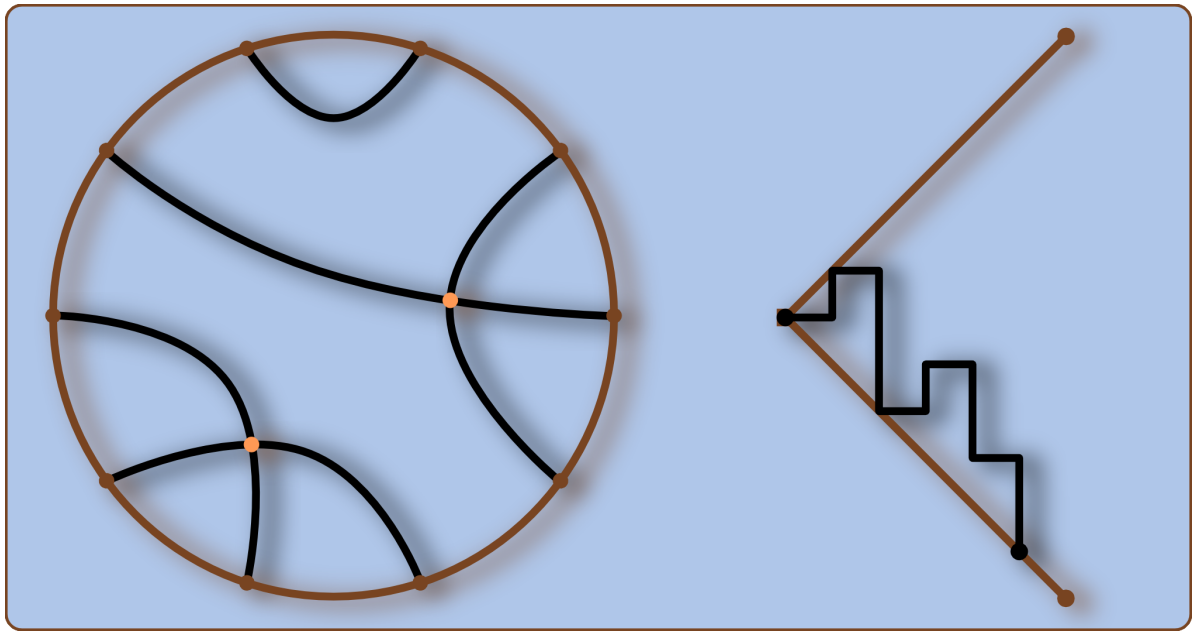
Theorem:

The number of chord diagrams with n chords and m crossings $=$ the number of walks ending at $(-n, n)$ with n east steps and m north steps



Open problem: find a bijective proof

A lot is known about crossing/nesting statistics:

- Crossings and nestings of matchings and partitions, R.P. Stanley et al Trans. Amer. Math. Soc. **359 (2007)**, 1555-1575.
  Applications of oscillating tableaux and vacillating tableaux to the enumeration of matchings and set partitions with conditions on crossings and nestings.