Witsenhausen's Problem

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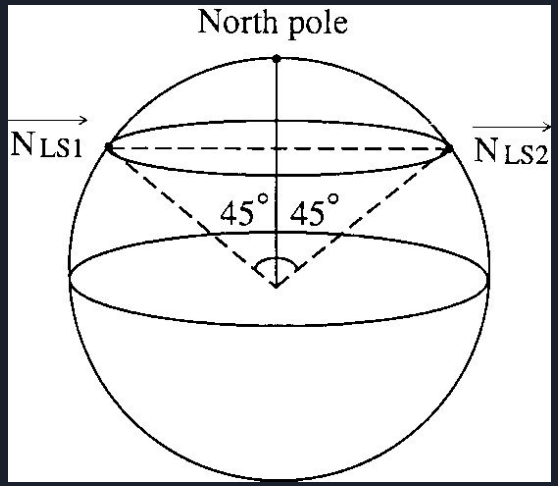
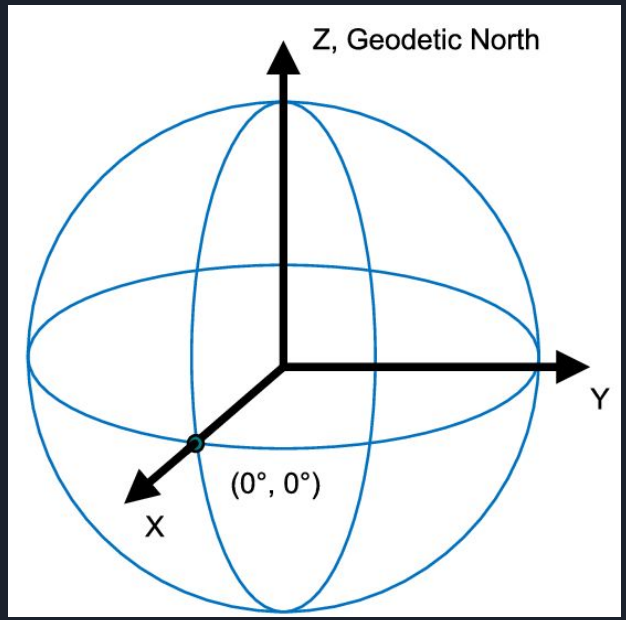
Problem Statement

- What is the largest non-orthogonal set on the surface of a unit n-dimensional sphere?
- Double Cap Conjecture





Applications

- Chromatic Number of Real Space
- Chromatic Number Applications
  - Scheduling
  - Radio Frequency Assignments

Proposal

I will improve on Decorte's upper bound to Witsenhausen's problem using probabilistic methods, moving us closer to proving the double cap conjecture.