

1135-05-1025      **Elanor West\*** (ewest13@jhu.edu), 9 E. 33rd St. #401, Baltimore, MD 21218, and **Xiao Xie**,  
**Hayden S Helm** and **Anan Zhang**. *Rendezvous Search on the Edges of Platonic Solids*. Preliminary report.

The classic Rendezvous Search problem involves two players moving along the same line at random until they meet. We were inspired by the Astronaut Problem rendition in which two players are on a sphere moving until they meet. We have simplified the model to discrete units of time and to take place along the edges of platonic solids. We assume the search ends when the two players can see each other. We have compared the mean times to end on all five solids, and have altered assumptions and strategies in various versions to see how certain changes affect the mean time to end. Some variations we have tried are: simultaneous versus sequential versions, varying lines of sight, multi-step strategies, and additional edges and nodes. Most of these variations we have explored more closely on either the dodecahedron, icosahedron, or both, since they are closer approximations to a sphere than the octahedron, cube, or tetrahedron. (Received September 18, 2017)