

Space: Its Light, Its Shape.

Chapter 15: Hyperbolic Space

Assignment: For

- Read Chapter 15.
- Though everyone is responsible for reading all of the material and for working out all of the exercises, teams have been assigned specific material and exercises for which they are responsible in class presentations. You may want to come to class early to firm up and smooth out the exercises with your teammates.

Team 3: Describe hyperbolic space H^3 . What do its two-dimensional slices look like?

Team 4: Describe how polyhedra in hyperbolic space are different from polyhedral in Euclidean space.

Team 1: Explain why you (as a being used to Euclidean-like space) would think that objects in hyperbolic space look closer than they are. Draw a diagram to illustrate.

Team 2: Present Exercise 15.1.

Team 3: Present Exercise 15.2.

Team 4: Describe how our universe would look to aliens who were raised in a hyperbolic universe.