

Mathematics 3260H – Geometry II: Projective and Non-Euclidean Geometry
TRENT UNIVERSITY, Fall 2021

Assignment #10
The Incredible Lightness of Being on Listwolme

Due on Friday, 26 November.

*May be submitted on paper or via Blackboard.**

Find and read the short story *The New Physics: The Speed of Lightness, Curved Space, and Other Heresies* by Charles Sheffield, and answer the questions below.

1. Prove the standard Sharog-Paty Theorem quoted in the story without using any trigonometry. [4]

Hint: All else failing you could look it up, if you can recognize what it it's called outside of the story. :-)

2. Prove the spherical version of the Sharog-Paty Theorem, also quoted in the story. You may use all the trigonometry you want to do so. [4]

Hint: It might help to review the lectures on spherical geometry. You may use the formulas and results given in those lectures. :-)

3. Give all the references you can find in *The New Physics* to actual persons, mathematical results, and physical theories, as well as historical events. [2]

NOTE: There are *lots*, and not all the references are to well-known things ...

* All else failing, please email your solutions to the instructor at: sbilaniuk@trentu.ca