1106-B1-2878 **Aaron Fenyes*** (afenyes@math.utexas.edu), The University of Texas at Austin, Mathematics Dept, RLM 8.100, 2515 Speedway Stop C1200, Austin, TX 78712. *The Geometry of The Night Sky (or, An Ape Pointing at The Stars).*

Sailors have long used stereographic projections of the sky, in the form of astrolabes, to work out their positions. If any of them had ever chanced to sail off the edge of the Earth, and found themselves traveling at relativistic velocities among the stars, they could have discovered a new use for their astrolabes: figuring out their velocities. This can be done because when a starship performs a change in heading, described by a Lorentz transformation, the celestial sphere as seen by its passengers shifts by a Möbius transformation, and this correspondence gives an isomorphism between the restricted Lorentz group and the Möbius group. Although this fact is quite classical, textbook treatments of it tend to be short on illustrations. I'll try to give a more visual impression of why it's true. (Received September 16, 2014)