Paul A. Kinlaw\* (Paul.Kinlaw@dartmouth.edu), Dartmouth College, Dept. of Mathematics, 6188 Kemeny Hall, Hanover, NH 03755. Refocussing of Light Rays in Spacetime. Preliminary report.

R. Low introduced three definitions of refocusing of light rays in spacetime. We show that the three definitions are equivalent as one expects. We define strong refocusing. Strong refocusing implies refocusing, but the converse is not known. We give examples of spacetimes that are refocusing but not strongly refocusing at all the points of a curve in a spacetime. This sheds some light on the relationship between the two notions. (Received July 29, 2008)