

Figure 1: Two antipodal observers follow the antipodal trajectories defined by

the left and right edge of the diagram. The diagonal lines form the cosmological horizons  $H_{\rm L}$  and  $H_{\rm R}$  for the two observers. They bound the two static patches

segment and the future lightsheet emanating from A is the dotted line.

 $P_{\rm L}$  and  $P_{\rm R}$  depicted in blue. The dashed line is an arbitrary global spacelike slice on which we place a sphere A depicted by a black dot.  $\Sigma_A \in \Sigma$  is the red