Crack propagation on curved surfaces MELISSA FENDER, University of Chicago, VINZENZ KONING, VINCENZO VITELLI, Leiden University, WILLIAM T.M. IRVINE, University of Chicago — We investigate the propagation of cracks on curved surfaces. Using a stretched elastic sheet situated at a fluid interface, we generate a surface with spatially varying curvature and observe the trajectory and dynamics of an induced crack. We interpret the results from our experiments using a combination of numerical simulation and analytical considerations.