962-53-1255 **Paul A Kirk***, Department of Mathematics, Indiana University, Bloomington, IN 47405, and **Matthias lesch**, Department of Mathematics, Tucson, AZ 85721. Splitting the Atiyah-Patodi-Singer rho invariant. Preliminary report.

We give a splitting formula for the APS rho invariant for a manifold decomposed along a hypersurface, and, more generally, a splitting formula for the eta invariant of any Dirac operator. (Received October 03, 2000)