Meeting: 998, Houston, Texas, SS 4A, Special Session on Nonlinear Analysis

998-58-274 **Alessandro Portaluri*** (portalur@ime.usp.br), Dipartimento di Matematica, Via Carlo Alberto, 10, 10100 Torino, Torino, Italy. *A formula for the Maslov index and its application for semi-Riemannian geodesics.*

The Maslov index of a Lagrangian path under a certain transversality assumption is given by an algebraic count of the intersections of the path with a co-oriented subvariety of the Lagrangian Grassmannian called the Maslov cycle. In these notes we use the well known formulas given by Robbin and Salamon in order to compute explicitly the Maslov index for linear autonomous Hamiltonian systems. We make some applications for semi-Riemannian geodesics. (Received March 01, 2004)