Meeting: 1003, Atlanta, Georgia, SS 11A, AMS Special Session on Riemannian Geometry, I

1003-53-1481 **Amine Fawaz*** (`fawaz_a@utpb.edu`), 4901 East University, Departments of Mathematics, Odessa, TX 79762. *Energy and foliations on Riemann surfaces.*

We define the energy of foliations on Riemann surfaces. We prove that meromorphic vector fields are critical points and we compute their energies using the Green's function. We then generalize the results to principal circle bundles over Riemann surfaces. (Received October 05, 2004)