1056-53-728   **Amine Fawaz*** (`fawaz_a@utpb.edu`), The University of Texas of the Permian Basin, Department of Mathematics, 4901 E. University, Odessa, TX 79762. *Volume of Meromorphic Vector fields on Flat Tori.* Preliminary report.

We define the volume of flows on riemannian manifolds, then we derive the Euler-Lagrange equations in dimension 2. We prove that holomorphic foliations on flat tori are critical and we compute their volumes. Finally, we give a lower bound for the volume of meromorphic foliations on flat tori. (Received September 16, 2009)