1016-53-17 **Christopher L. Saunders*** (`saundec@westminster-mo.edu`), Westminster College, Fulton, MO 65251. *Floer homology for Almost Hamiltonian Isotopies.*

P. Seidel introduced a homomorphism from the fundamental group $\pi_1(\mathrm{Ham}(M))$ of the group of Hamiltonian diffeomorphisms of certain compact symplectic manifolds (M, ω) to a quotient of the automorphism group $Aut(HF_*(M, \omega))$ of the Floer homology $HF_*(M, \omega)$ which has been used extensively in Symplectic Geometry. I will outline a proof of a rigidity property : if two Hamiltonian loops represent the same element in $\pi_1(\mathrm{Diff}(M))$, then the image under the Seidel homomorphism of their classes in $\pi_1(\mathrm{Ham}(M))$ coincide. The proof consists in extending the choices available in defining Floer homology to include "almost Hamiltonian" isotopies, i.e. isotopies that are homotopic relative to endpoints to Hamiltonian isotopies. I will give a quick introduction to Floer homology and Seidel's homomorphism, then sketch the proof of the result described above. (Received December 19, 2005)