1067-37-1608 **Katie T Liszewski*** (ktliszew@ncsu.edu). *The charged free boson integrable hierarchy.*

Classical integrable hierarchies, such as the KP and Toda hierarchies, have an algebraic construction, which relies on the boson-fermion correspondence, an isomorphism between the fermionic and bosonic Fock spaces. Analogously, the representation of gl_∞ formed by two charged free bosons can be identified with a bosonic Fock space via the Friedan-Martinec-Shenker bosonization. We construct the corresponding charged free boson integrable hierarchy and show that it has many of the properties of the classical hierarchies. (Received September 21, 2010)