$\beta - \gamma$ SYSTEMS AND SYMPLECTIC LOOP GROUPS

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For a given finite dimensional symplectic space W, it is known that representations of the Heisenberg algebra associated to W and the theta functionals can be used to construct interesting functions on the Lagrangian Grassmanians of W. In this talk, we will discuss the generalization of the above to the loop Heisenberg algebras and the relation to the $\beta - \gamma$-systems in conformal field theory.