Formulae ofunpublished preprint

$$H = \frac{P^2 + W^2(q)}{2} + \theta_1\theta_2 W'(q)\,,$$

whre $W(q)$ is suprepotential.

This Hamiltonian may be replaced by

$$\bar{H} = Q_1\,,$$

where

$$Q_1 = -p\theta_2 + W(q)\theta_1\,,\ Q_2 = p\theta_1 + W(q)\theta_2\,.$$

Poisson bracket:

$$\{p,q\}_0 = 1\ ,\{\theta_\alpha,\theta_\beta\}_0 = \delta_{\alpha\beta}\ ,\{p,\theta\}_0 = 0\ \{q,\theta\}_0 = 0\ \{\}_0 =$$

We try to find $[]'_1$ such that

$$\dot{f} = \{f,H\} = [f,H]\,.$$

In the special case If $W = q.$ then $[]'$ takes the canonical form $[]' = []$, where

$$[p,\theta_1] = [q,\theta_2] = 1\ ,[p,\theta_2] = [q,\theta_1] = 0\ ,[\theta,\theta] = 0\ ,[] =\ ,$$

and the superlagebra of integrals with respect to even bracket

$$\{Q_\alpha,Q_\beta\} = H\delta_{\alpha\beta}\,,\quad \{Q_\alpha,F\} = \delta_{\alpha\beta}Q_\beta\,,\quad F = \frac{Q_1Q_2}{2H} = \theta_1\theta_2\,.$$

is the 'same' with respect to the odd bracket:

$$\{\bar{Q}_\alpha,\bar{Q}_\beta\} = \bar{H}\delta_{\alpha\beta}\,,\quad \{\bar{Q}_\alpha,\bar{F}\} = \delta_{\alpha\beta}\bar{Q}_\beta\,,$$

where

$$\bar{F} = -\frac{i}{2}Q_2, \bar{Q}_1 = H\ ,\bar{Q}_2 = i(2F - H)$$