H

HAMILTONIAN SYSTEMS

$$\dot{} = \nabla (\,t) \qquad = \begin{pmatrix} 0 & \\ - & 0 \end{pmatrix} \qquad (1)$$

$+1\ 2$ … 2×2 … $\times$ … a … a … a … $= (\quad),$

$$\dot{} = \qquad \dot{} = - \quad .$$

… $= \quad =$ … $H(\ ,\ )$ … (1)

Hamiltonian C-12S

$$(1)$$

$$\frac{\ }{t} = \frac{\delta}{\delta}, \quad \frac{\ }{t} = -\frac{\delta}{\delta}.$$

$$[\ \ ] = \int \frac{1}{2}\left({}^2 + {}^2(\ \ )^2 \right).$$

S a **Adiabatic invariants; Chaotic dynamics; Constants of motion and conservation laws; Ergodic theory; Euler–Lagrange equations; Fermi–Pasta–Ulam (FPU) oscillator chain; Hénon–Heiles system; Horseshoes and hyperbolicity in dynamical systems; Lyapunov exponents; Melnikov method; Pendulum; Phase space; Poisson brackets; Standard map; Symplectic maps; Toda lattice**

Further Reading

. . ( ). 1 . *D a a S III*,

. . 1 . *Ma a a M C a a M a*

Manuscript Queries

Title: Encyclopedia of Non-linear Sciences
Alphabet H: Hamiltonian systems

Page	Query Number	Query
No Queries		