## SYMPLECTIC MAPS

$$= p \wedge q. \tag{1}$$

 $(q_i, p_i), i = 1, \ldots, n, r$ 

$$f = q' p' + p q, r = r'$$

$$q' = q + t \frac{H}{p'}(q, p'), \quad p' = p - t \frac{H}{q}(q, p').$$
 (4)

 $p'. \qquad , \qquad H = K(p) + V(q)$ 

## **The Symplectic Group**

 $\begin{array}{c}
M \\
M \\
M
\end{array}$   $(M) = 1, \quad M_{-1} \dots \qquad K, \quad M_{-1} \dots \qquad K, \quad M_{-1} \dots \qquad K.$ 

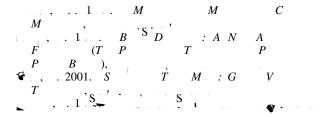
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 $m \cdot$ C2001). (a, b, c) ( , , , 1 , ).

S

S Aubry-Mather theory; Cat map; Chaotic dynamics; Constants of motion and conservation laws; Ergodic theory; Fermi acceleration and Fermi map; Hamiltonian systems; Hénon map; Horseshoes and hyperbolicity in dynamical systems; Lyapunov exponents; Maps; Measures; Melnikov method; Phase space; Standard map

## **Further Reading**



## **Manuscript Queries**

Title: Encyclopedia of Non-linear Sciences Alphabet S: Symplectic maps

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