JGM The Journal of Geometric Mechanics

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The Journal of Geometric Mechanics (JGM) focuses on new applications of geometric methods (in a broad sense) to mechanics and control theory, and intends to facilitate interaction between theory and applications. Advances in the following topics will be welcomed by the journal:

▷ **Lagrangian and Hamiltonian mechanics**
▷ **Symplectic and Poisson geometry and their applications to mechanics**
▷ **Geometric and optimal control theory**
▷ **Geometric and variational integration**
▷ **Geometry of stochastic systems**
▷ **Geometric methods in dynamical systems**
▷ **Continuum mechanics**
▷ **Classical field theory**
▷ **Fluid mechanics**
▷ **Infinite-dimensional dynamical systems**
▷ **Quantum mechanics and quantum information theory; applications in physics, technology, engineering, and the biological sciences**

Articles in the First Issue

▷ **The ubiquity of the symplectic Hamiltonian equations in mechanics**
Paula Balseiro, Manuel de León, Juan C. Marrero and David Martín de Diego
▷ **G-Chaplygin systems with internal symmetries, truncation, and an (almost) symplectic view of Chaplygin's ball**
Simon Hochgerner and Luis García Naranjo
▷ **Three-dimensional discrete systems of Hirota-Kimura**
Andrew N.W. Hone and Matteo Petrera
▷ **Dirac Cotangent Bundle Reduction**
Hiroaki Yoshimura and Jerrold E. Marsden