

PATRICK IGLESIAS

SYMÉTRIES ET MOMENT

Originally published by the esteemed Éditions Hermann, this classic text on the geometric principles of mechanics now returns in a definitive, revised author's edition after a quarter-century.

From Lagrange's foundational work on celestial mechanics to the heart of modern symplectic geometry, the book elegantly traces the path from physical problems to abstract structures. Uniquely developing the theory from Lagrange viewpoint, Patrick Iglesias-Zemmour shows how the fundamental principles of symmetry give rise to the moment map—the central theme of the work.

The purpose of this new edition is to create a definitive and corrected reference for the mathematical community. By meticulously cleaning the original text of misprints and rectifying key definitions, it preserves a historical milestone in the literature of geometric mechanics. This work now serves as the established foundation for the author's forthcoming sequel, *The Geometry of Motion*, which will offer a complete modern synthesis for a new generation of scholars.

Symétries et Moment is thus an indispensable resource for researchers and students seeking to understand the origins of the moment map and the enduring power of Lagrange approach. It stands as a perfected testament to the deep relationship between symmetry and conservation.

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