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Sommario/riassunto

This book aims to present a new approach called Flow Curvature Method that applies Differential Geometry to Dynamical Systems. Hence, for a trajectory curve, an integral of any n-dimensional dynamical system as a curve in Euclidean n-space, the curvature of the trajectory - or the flow - may be analytically computed. Then, the location of the points where the curvature of the flow vanishes defines a manifold called flow curvature manifold. Such a manifold being defined from the time derivatives of the velocity vector field, contains information about the dynamics of the system, hence identifyi