

Transport through chaos

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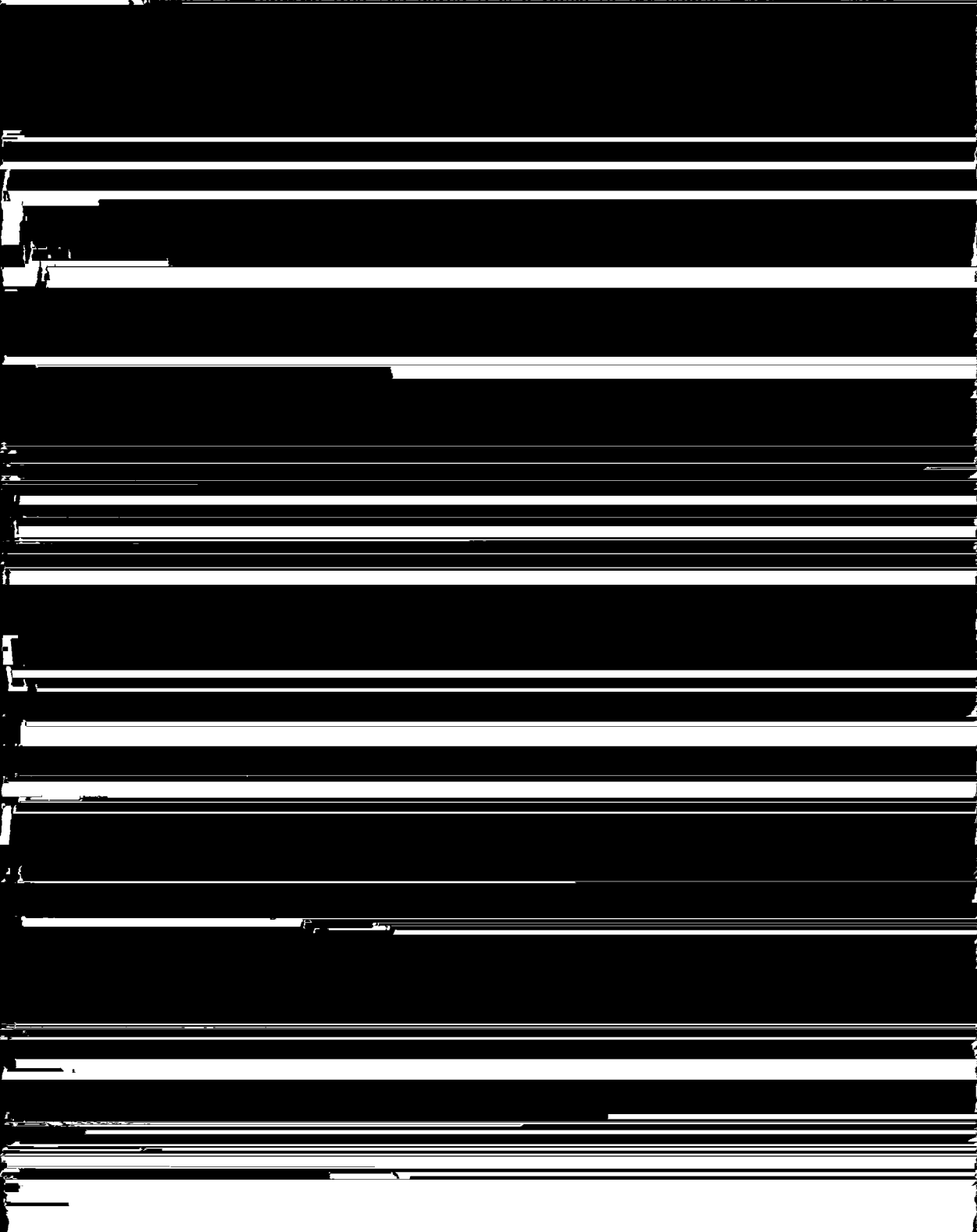
Transport through chaos

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determine how ensembles of points are transported. The action principle of MacKay, Meiss and Percival [4] can be used to compute areas of pieces of the grid. Thus knowledge of trellis geometry together with area computations will form the

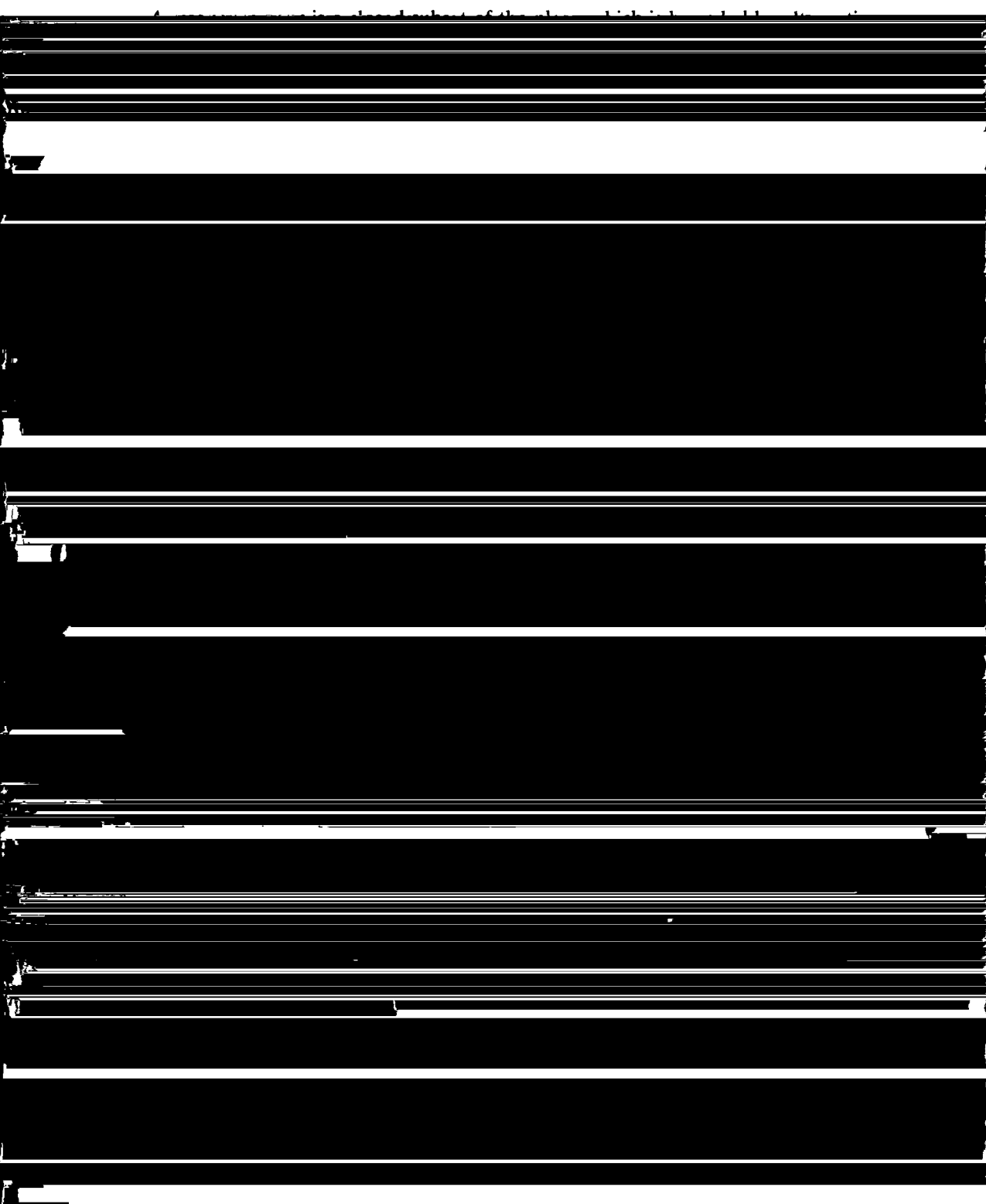
Figure 2.1. Suppose that the curve μ is a piece of the stable manifold of some



Rearranging the sum gives

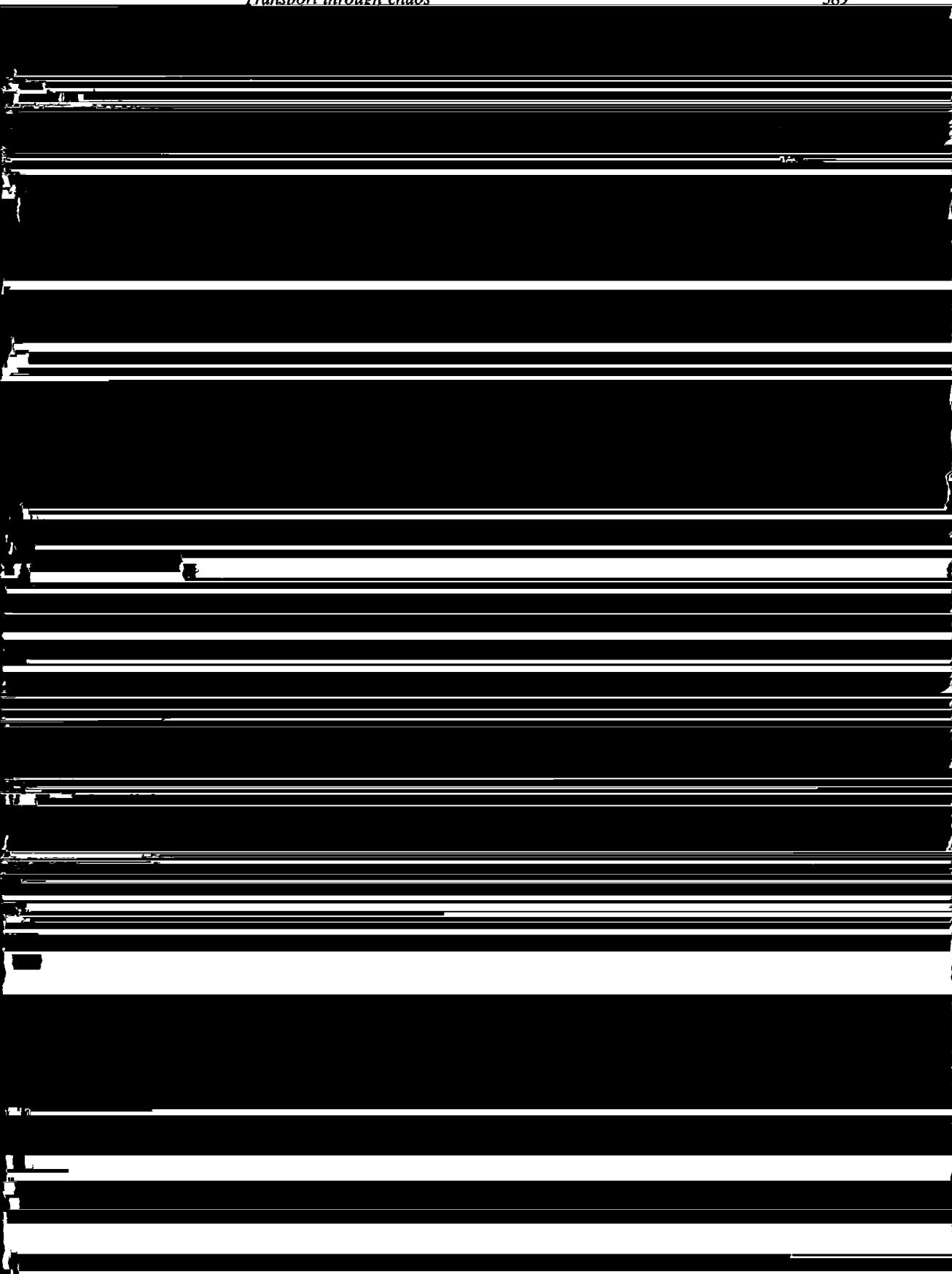
$$\int_D dp \wedge dq = \sum_{j=-\infty}^{\infty} \alpha^j [F(b_j) - F(a_j)].$$

In general suppose that D is a disc bounded by alternating segments of stable



Proposition. Discontinuity points of t^+ occur on R -stable manifolds. Similarly, discontinuity points of t^- occur on R -unstable manifolds. Hence the internal trellis of the resonance zone partitions the zone into its exit time decomposition.

Proof. For simplicity the proof will be given for the resonance zone pictured in



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- [8] Easton R 1989 Isolating blocks and epsilon chains for maps *Physica* **39D** 95–110