

INDAM MEETING:  
**HYPERBOLIC DYNAMICAL SYSTEMS  
IN THE SCIENCES**

CORINALDO (ITALY)  
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**Escape rates, entropy and Lyapunov exponents in dynamical systems with holes**

For a broad class of systems with holes, we study the relation between escape rates with respect to a reference measure and the pressure (entropy minus positive Lyapunov exponents) on the survivor set, the set of points which never enters the hole. Under certain conditions, we derive a full variational principle for the open system. When applied to Anosov diffeomorphisms, this variational principle allows us to determine how the escape rate changes as we vary the size and position of the hole.

(Joint work with P. Wright and L.-S. Young)