

Criteria for zero averages and applications in partially hyperbolic dynamics.

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We present two criteria guaranteeing zero averages for continuous potentials. We apply these criteria to the central derivative of a partial hyperbolic diffeomorphism to get the "robust" existence of non-hyperbolic ergodic measures for these systems (properties of these measures -as positive entropy or full support- depend on the criterion).

Works in collaboration with Bochi and Bonatti.