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**Mariusz Urbanski\*** (urbanski@unt.edu), Department of Mathematics, University of North Texas, 1155 Union Circle #311430, Denton, TX 76203-5017, and **Volker Mayer**. *Thermodynamic formalism and integral means spectrum of asymptotic tracts for transcendental entire functions.*

We extend the theory of thermodynamic formalism to a very general class of hyperbolic entire functions of class  $\mathcal{B}$ . It contains the class of all entire functions for which thermodynamic formalism has been so far established. In fact, it goes much beyond. This new class contains as particular examples all Poincaré functions of topological Collet-Eckmann polynomials.

The key point is that we introduce an integral means spectrum for logarithmic tracts which takes care of the fractal behavior of the boundary of the tract near infinity. It turns out that this spectrum behaves well as soon as the tracts have some sufficiently nice geometry which, for example, is the case for quasicircle, John or Hölder tracts (the class of functions considered so far pertained to the Lipschitz tracts). In this case we get a good control of the corresponding transfer operators, leading to full thermodynamic formalism. In addition, the graph of the integral means spectrum has then a unique zero and allows us to prove a version of Bowen's formula for the Hausdorff dimension of the radial Julia set. (Received August 30, 2017)