HAUSDORFF CONVERGENCE AND THE LIMIT SHAPE OF THE UNICORNS

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ABSTRACT. We discuss the Hausdorff convergence of hyperbolic components in parameter space as a one-parameter family of transcendental functions is dynamically approximated by polynomials. This convergence is strongly suggested by computer experiments and is proved in a weaker form, which is illustrated with exponential, sine and cosine families. Furthermore, we consider the convergence of subhyperbolic components. Our result also applies to the antiholomorphic exponentials, which allows us to investigate the limit shape of the unicorns.