HAUSDORFF MEASURE OF ESCAPING SETS OF MEROMORPHIC FUNCTIONS WITH INFINITE ORDER

LI WENLI, KIEL UNIVERSITY

In this talk we study the Hausdorff measure of a certain type of transcendental meromorphic functions in Eremenko-Lyubich class, for which infinity is not its asymptotic value. If the multiplicities of all poles are bounded then the escaping sets have area zero. It would be natural for such functions of finite order as the Hausdorff dimension is strictly less than 2, which was shown by Bergweiler and Kotus. For the situation of infinite order, we find gauge functions with which the Hausdorff measure of escaping sets is zero or finite. Some interesting details of the proof would also be briefly shown.