

$$f: M_\lambda \rightarrow \Delta^{n-1}$$

is an analytic variety of dimension $\leq n-1$.

□ A generic hyperplane in \mathbb{C}^n does not contain $f(M)$.

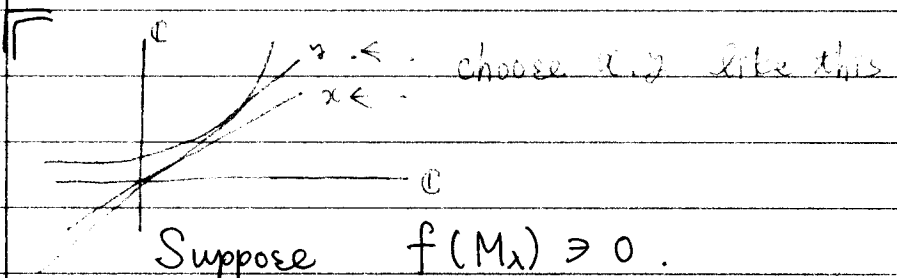
$$\Rightarrow f^{-1}(\text{a generic hyperplane in } \mathbb{C}^n) \neq M$$

\Rightarrow Since $f^{-1}(\text{a generic hyperplane})$ is an analytic variety (see p231 ~ p232 note), $f^{-1}(\text{a generic hyperplane})$ has dimension $\leq n-1$. By the induction assumption, and reduction (2), $f(M_\lambda)$ is an analytic subvariety in Δ^{n-1} of dimension $\leq n-1$. \square

For a generic choice of coordinate system, the coordinate projections

$$f(M_\lambda) \rightarrow \Delta^n$$

are all proper mappings.



\Rightarrow Consider the tangent cone at the origin. \Rightarrow

Around the origin, the projection of $f(M_\lambda)$ to the tangent cone is proper. By slightly varying the direction of any line of the tangent cone, still the projection of $f(M_\lambda)$ is proper, and since the variations