Critically Fixed Anti-Rational Maps, Gravitational Lensing, Rotation Domains, Semihyperbolic Polynomials
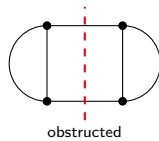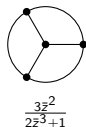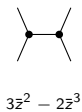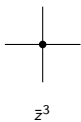
Lukas Geyer (Montana State University)
MSRI Research Member, Complex Dynamics, Spring 2022
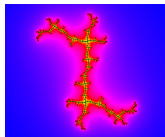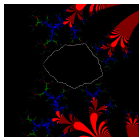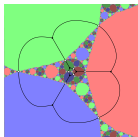
Critically Fixed Anti-Rational Maps via Tischler Graphs

Degree 3

$\bar{z}^3$

$3\bar{z}^2 - 2\bar{z}^3$

$\frac{3\bar{z}^2}{2\bar{z}^3+1}$

obstructed

Tetrahedral map
Maximal lensing map

Degree 4

(unobstructed)

Maximal lensing map

Question: Do these all have finite global curve attractors?