

Dynamical Research Summer 2014
Singular, Non-Holomorphic Perturbations

0.1 Weekly Updates

7/6/2014:

- Working through the Bozyck/Peckham paper again for refresher
- Worked on the parameter space function and managed to get that to pump out images
- Starting using standard “spectral” color mapping, added colormap as parameter to functions
- Added a kind of general main function through which I can make phase or param space images
- Added a filename convention to keep track of what a given image is depicting
- Added some code to generate the latex snippet needed to add an image to a latex document
- Started a running work pdf to hold weekly updates along with archive-worthy images
- Starting to work on solving along the real axis

0.2 Images

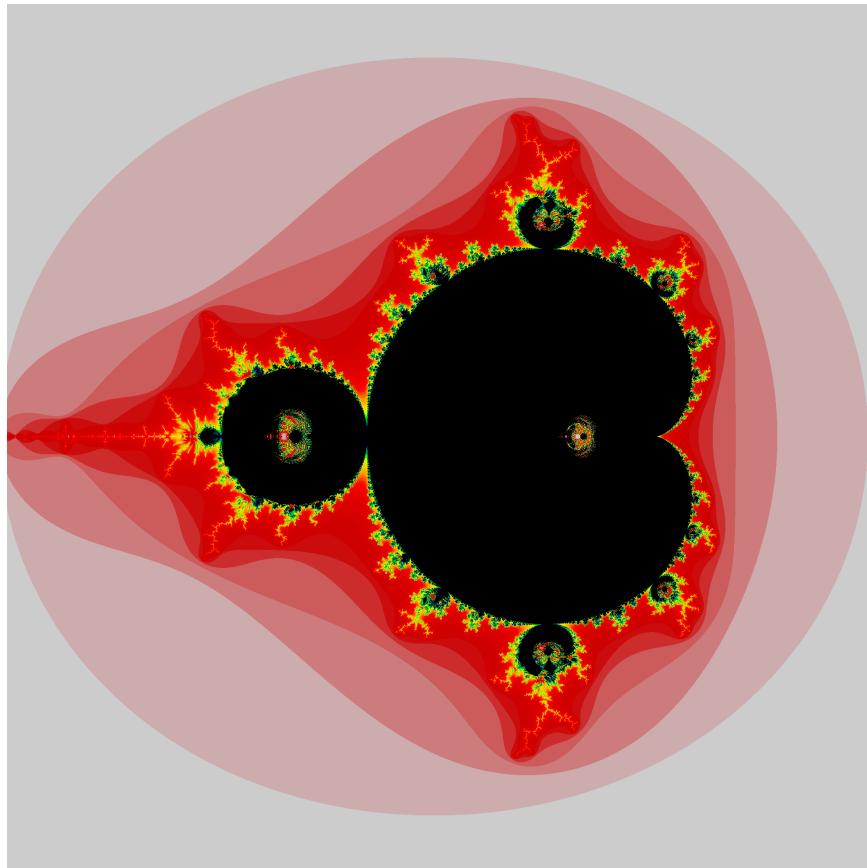


Figure 1: Parameter space image for param c with the equation $z^2 + 1 + \frac{0.000100000000000000}{\bar{z}^2}$

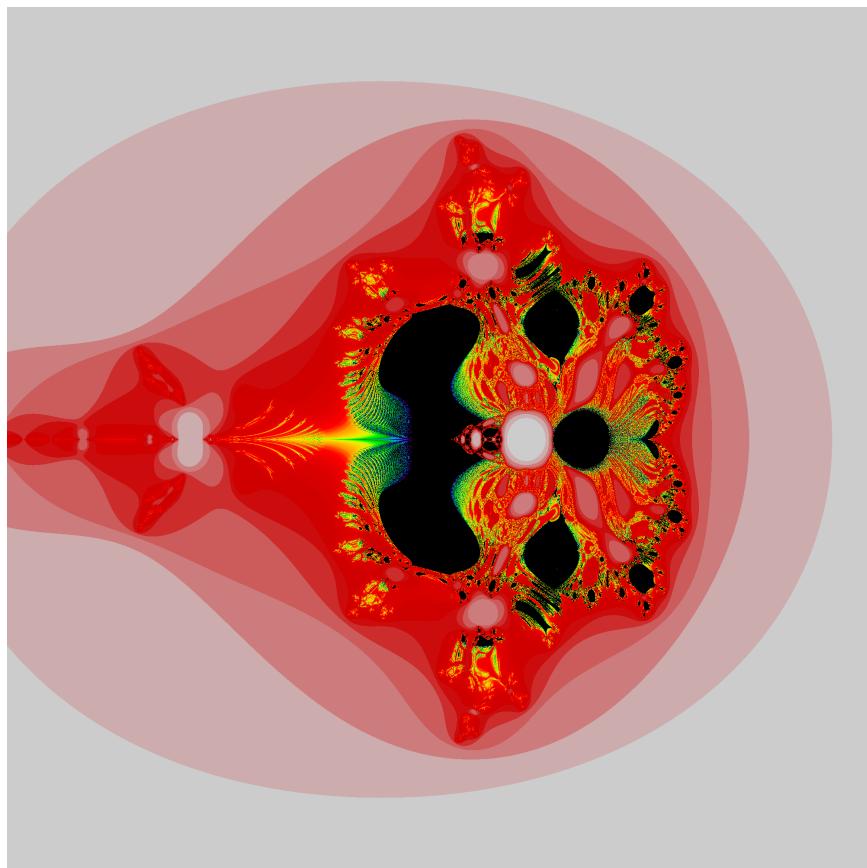


Figure 2: Parameter space image for param c with the equation $z^2 + 1 + \frac{0.010000000000000}{\bar{z}^2}$

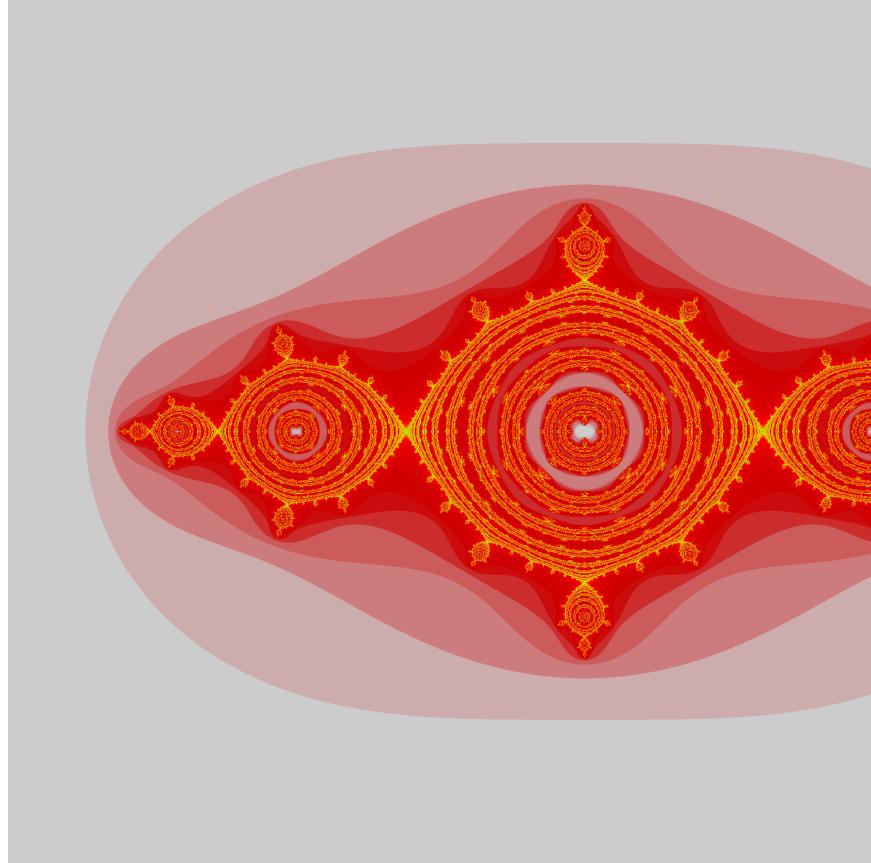


Figure 3: Phase space image of $z^2 + -1 + \frac{-0.001000000000000000}{z^2}$

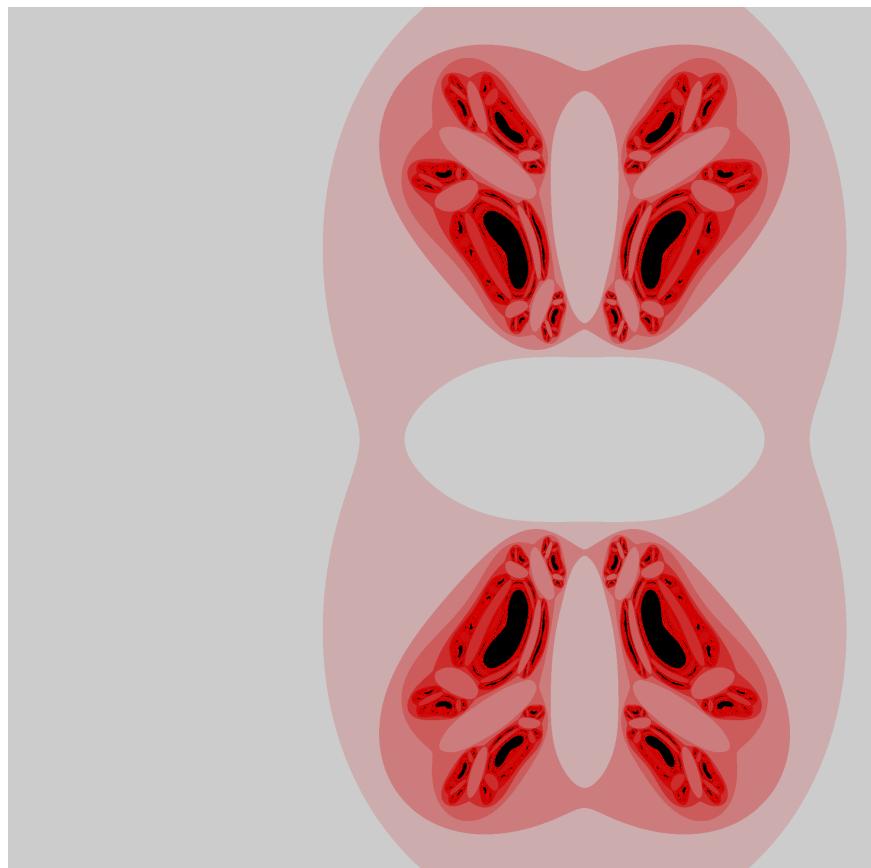


Figure 4: Phase space image of $z^2 + 1 + \frac{0.2380000000000000}{z^2}$

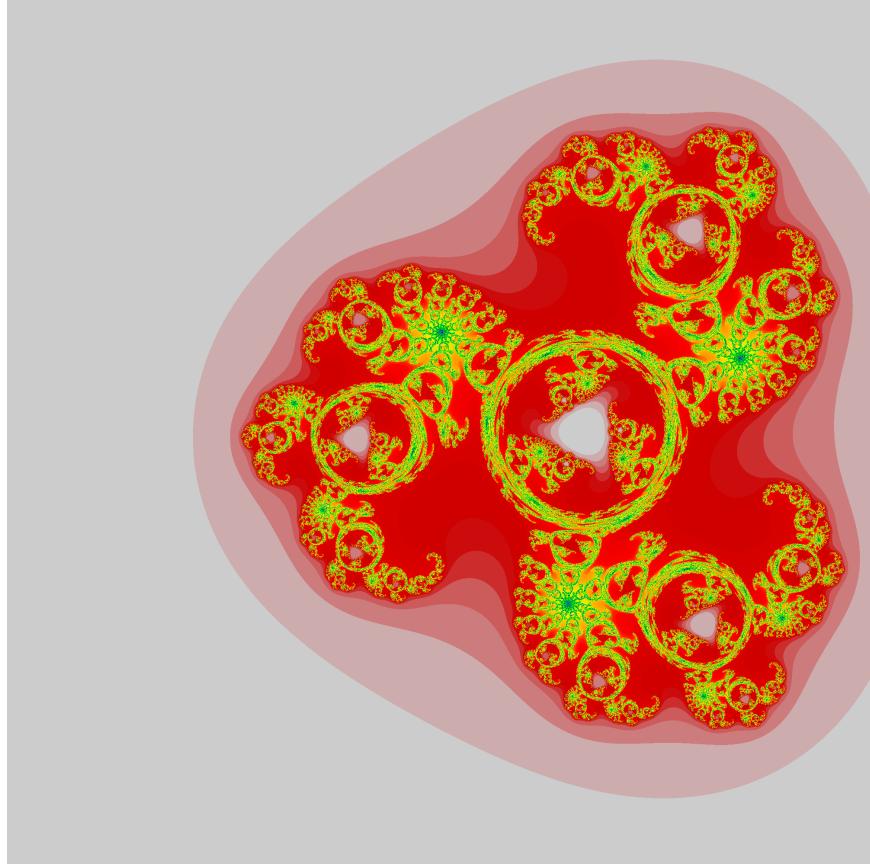


Figure 5: Phase space image of $z^3 + (0.49 + 0.049j) + \frac{-0.00100000000000000}{\bar{z}^3}$

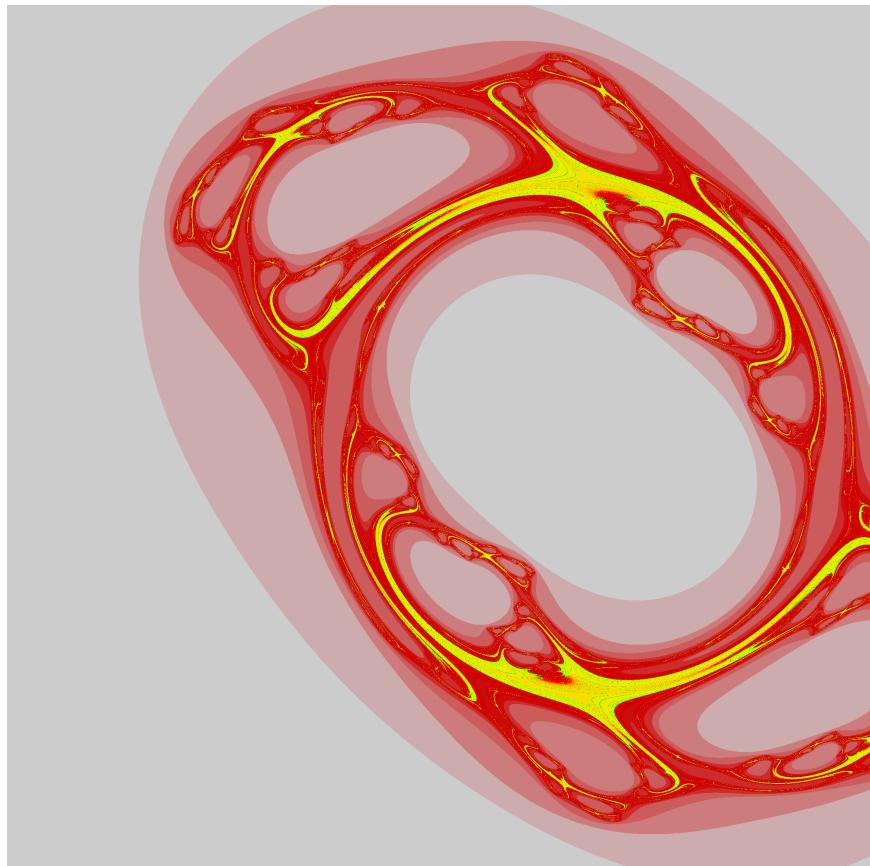


Figure 6: Phase space image of $z^2 + 1j + \frac{(-0.6+0.1j)}{\bar{z}^2}$

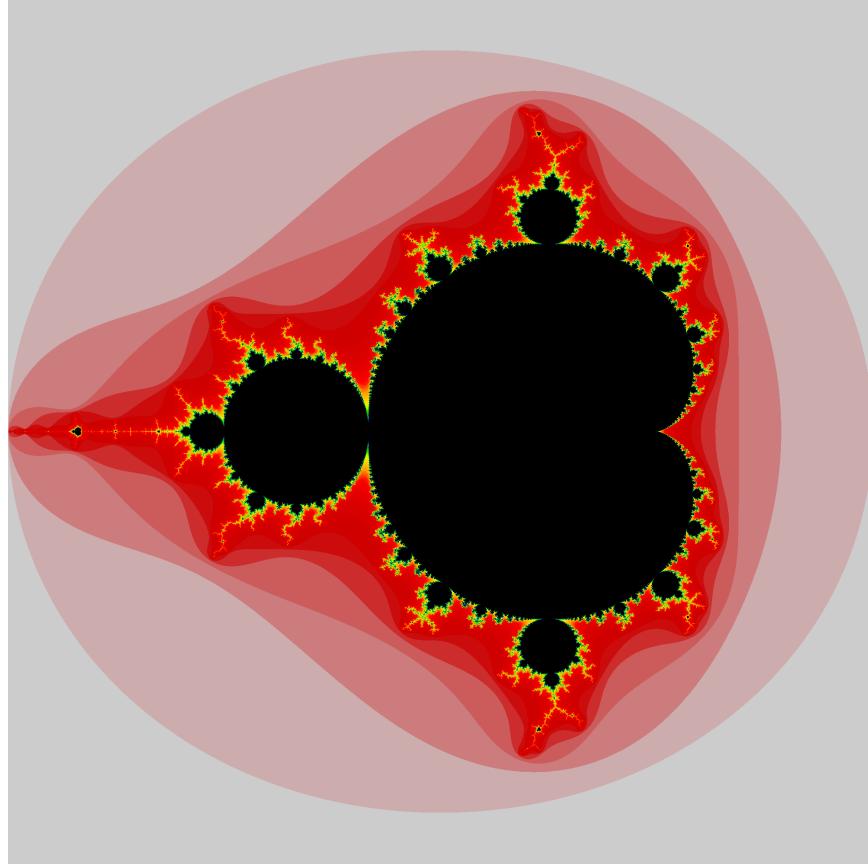


Figure 7: Parameter space image for param c with the equation $z^2 + 0 + \frac{0}{z^2}$

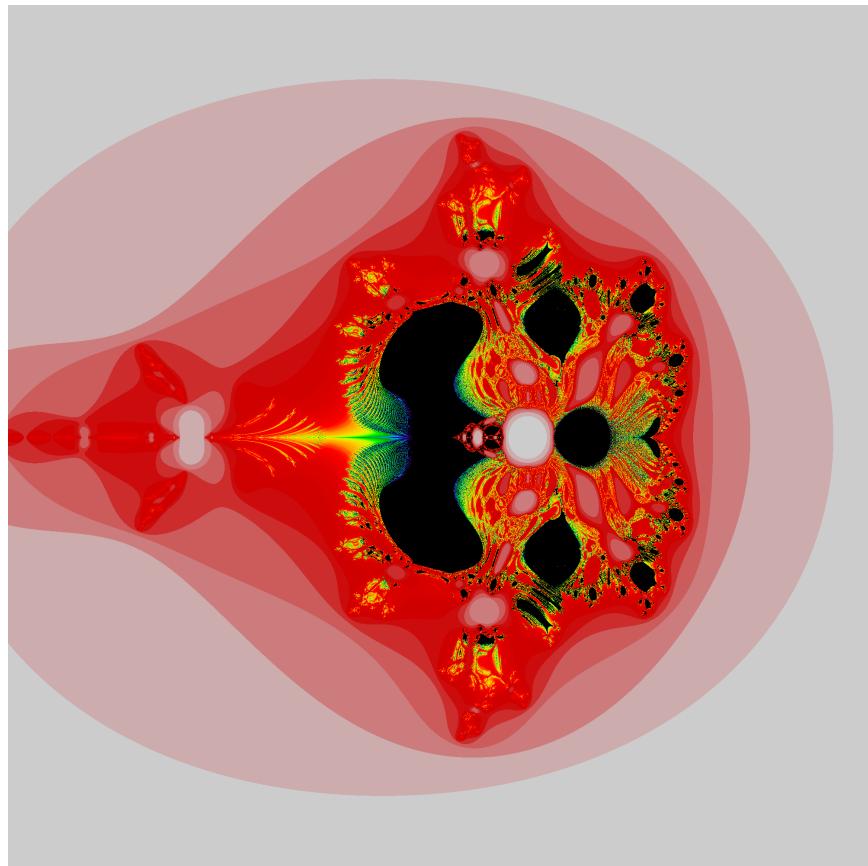


Figure 8: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.00990000000000000}{z^2}$

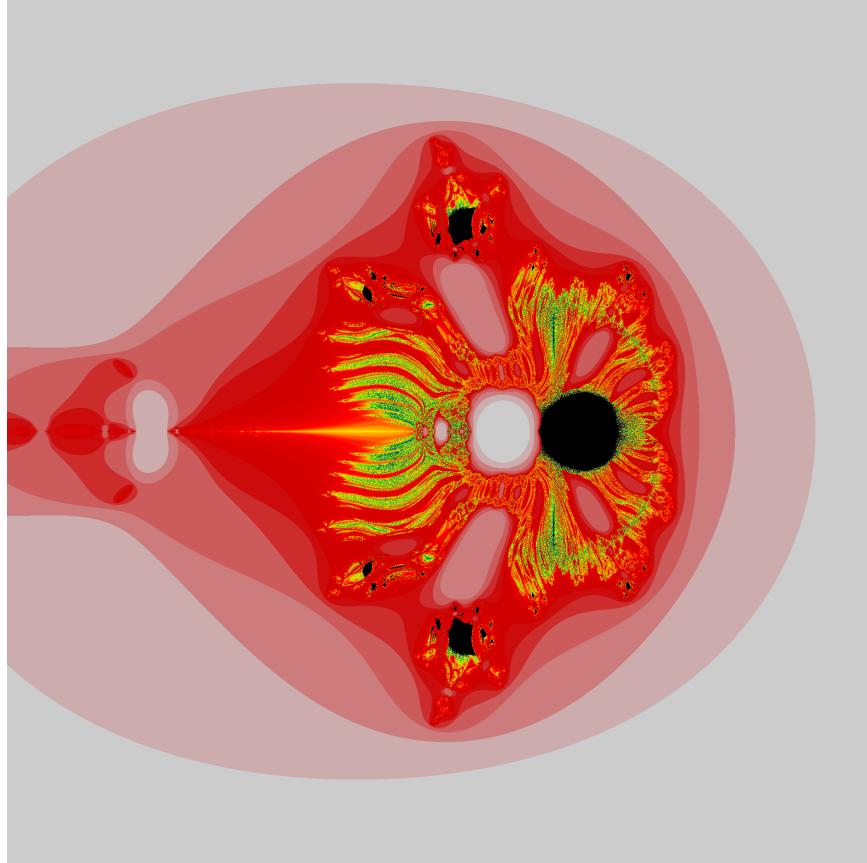


Figure 9: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.01980000000000000}{z^2}$

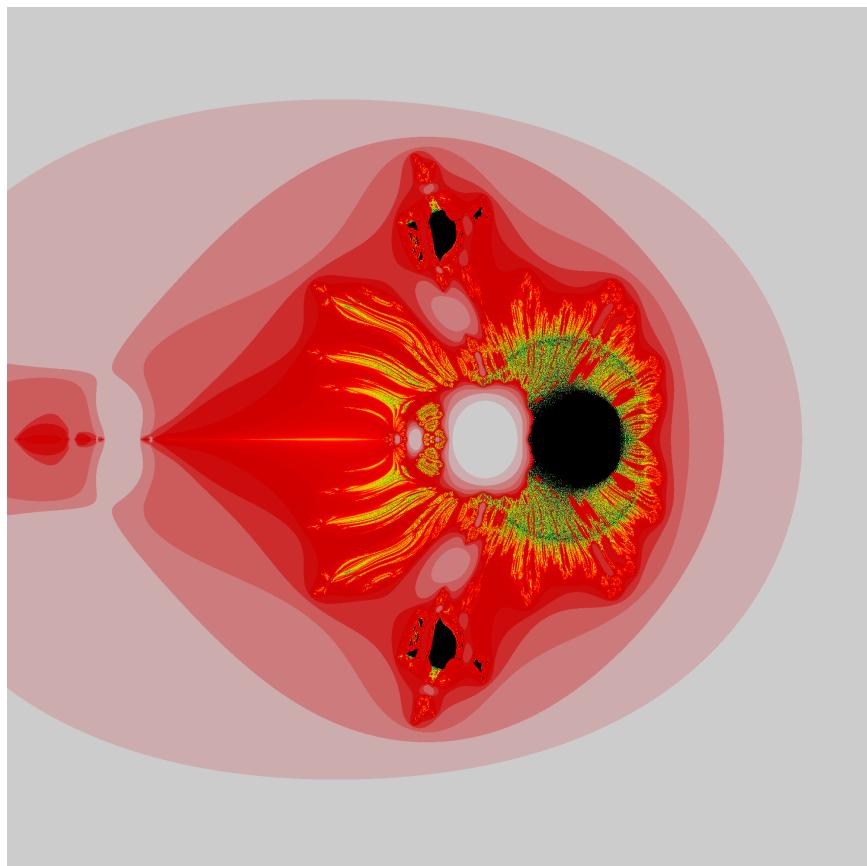


Figure 10: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.02970000000000000}{z^2}$

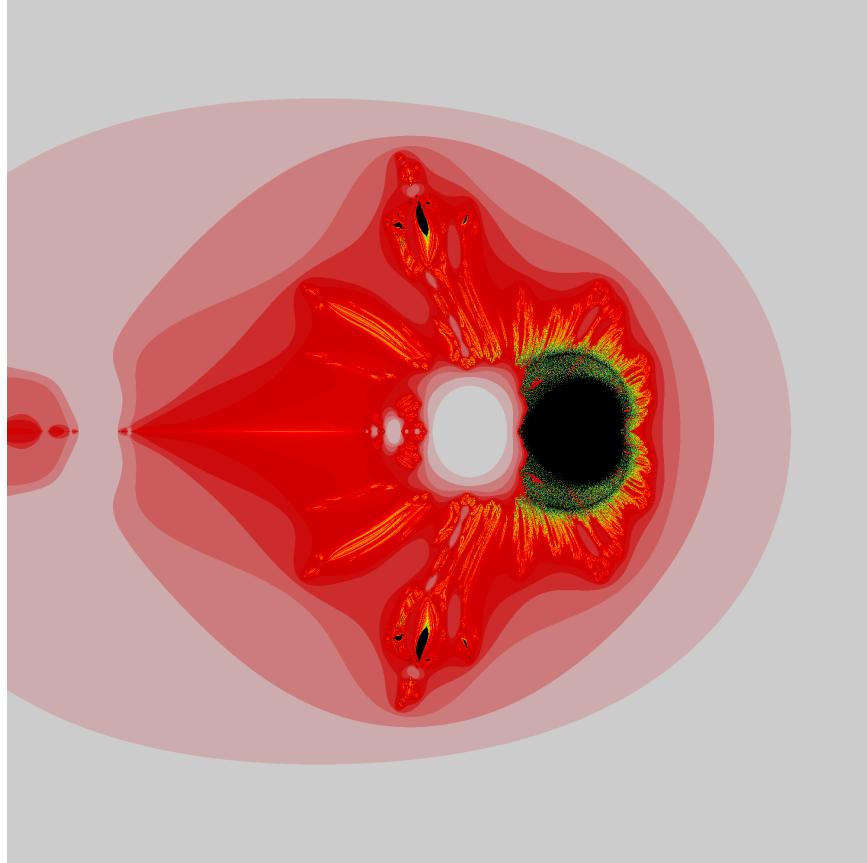


Figure 11: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.03960000000000000}{z^2}$

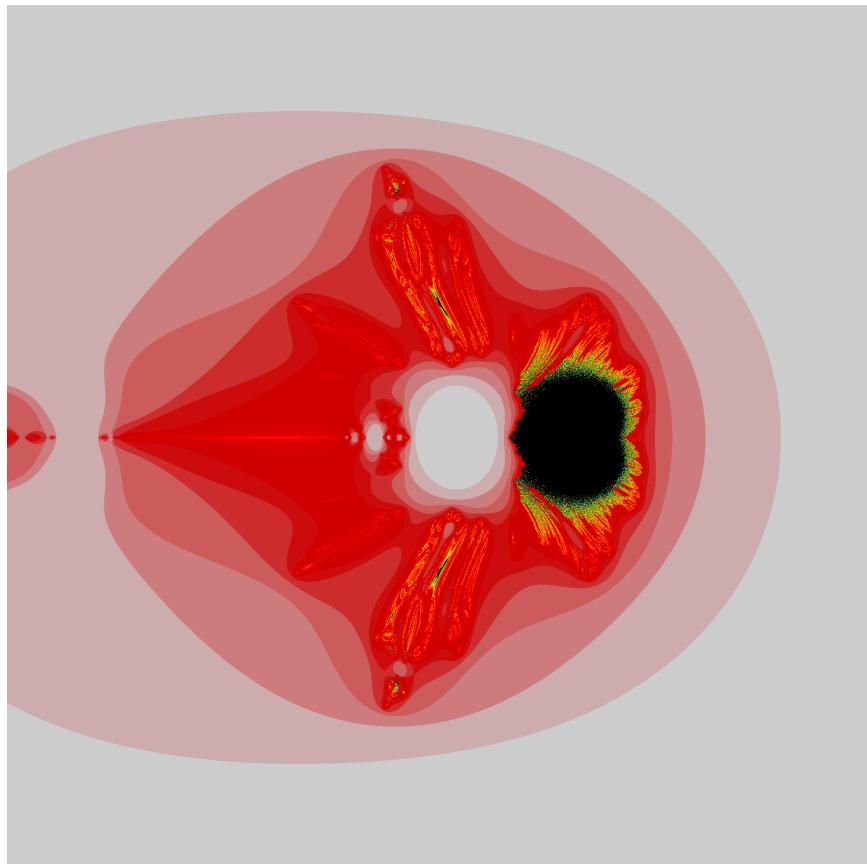


Figure 12: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.04950000000000000}{z^2}$

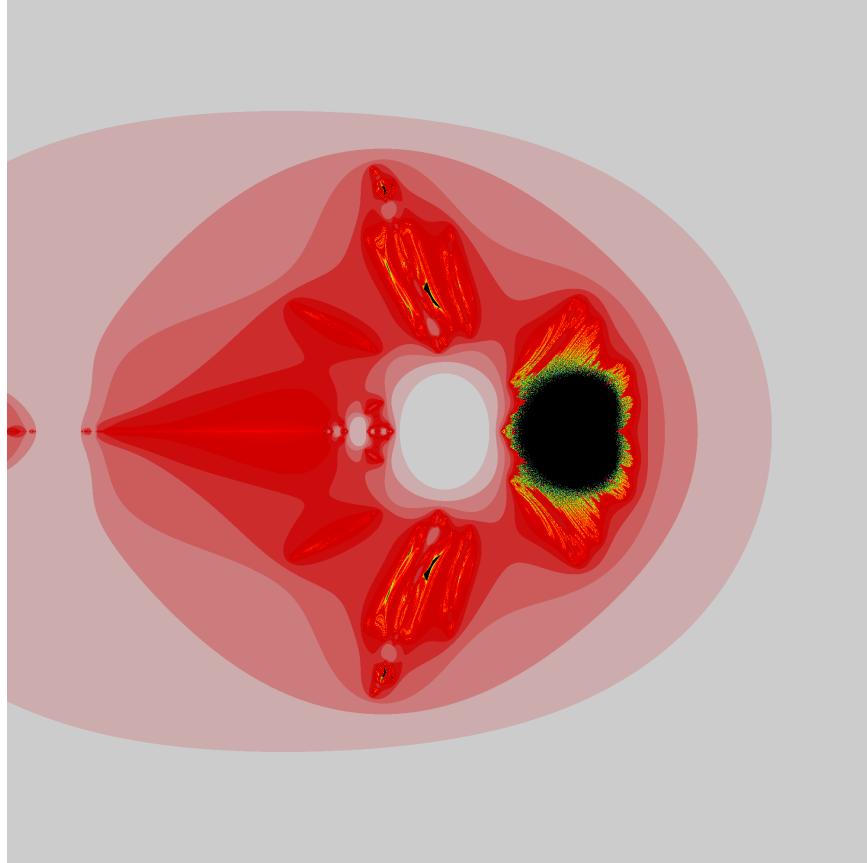


Figure 13: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.0594000000000000}{\bar{z}^2}$

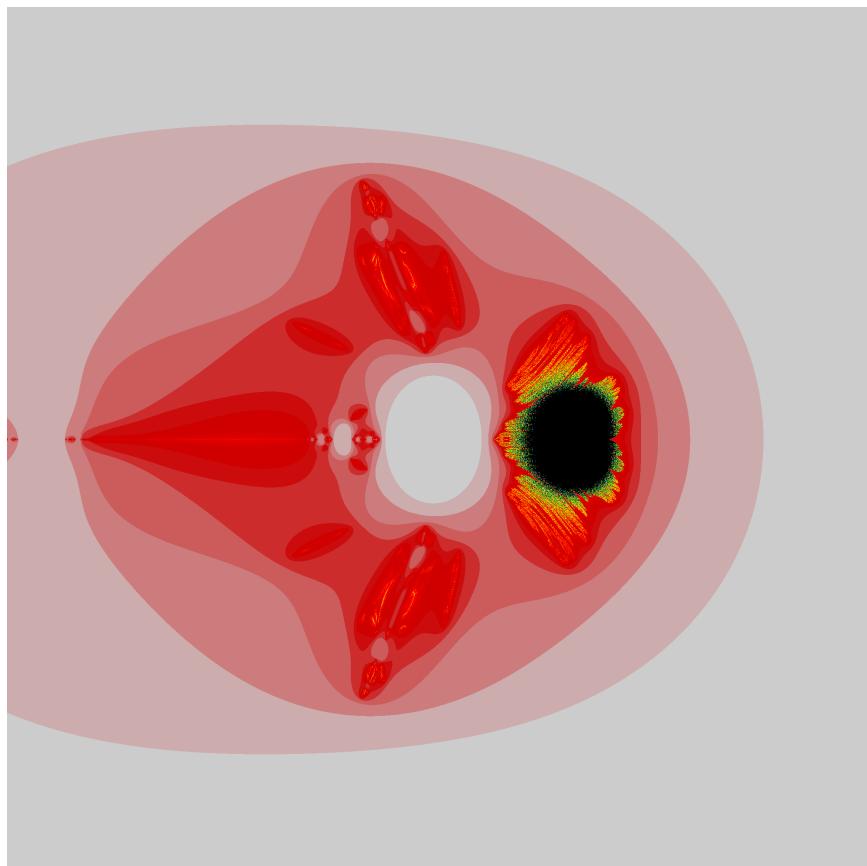


Figure 14: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.0693000000000000}{\bar{z}^2}$

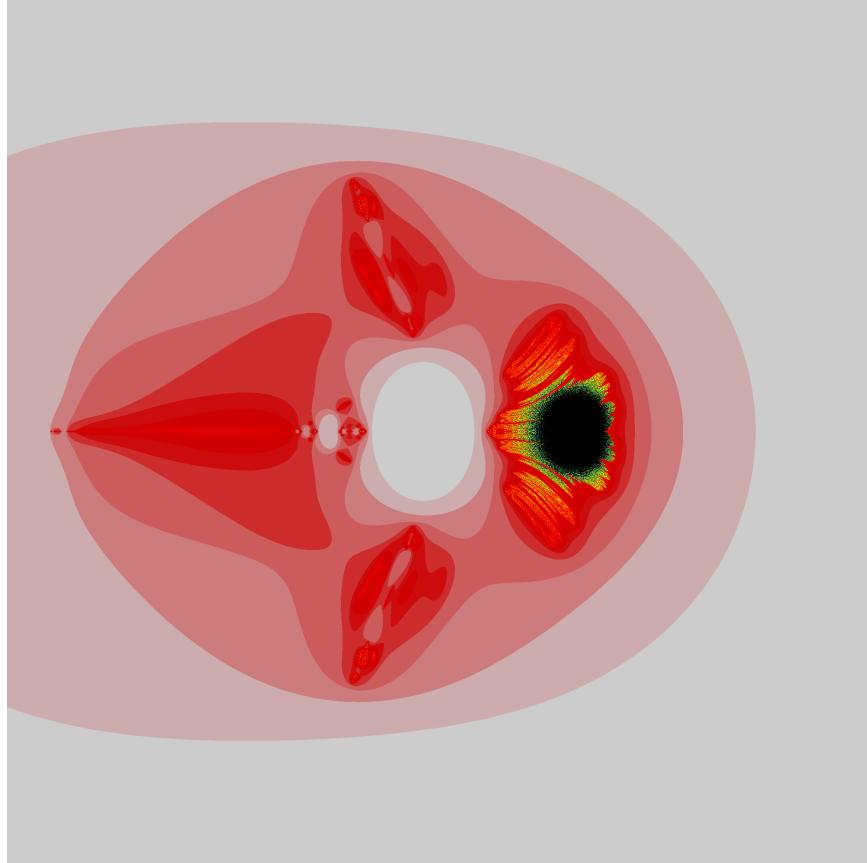


Figure 15: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.0792000000000000}{\bar{z}^2}$

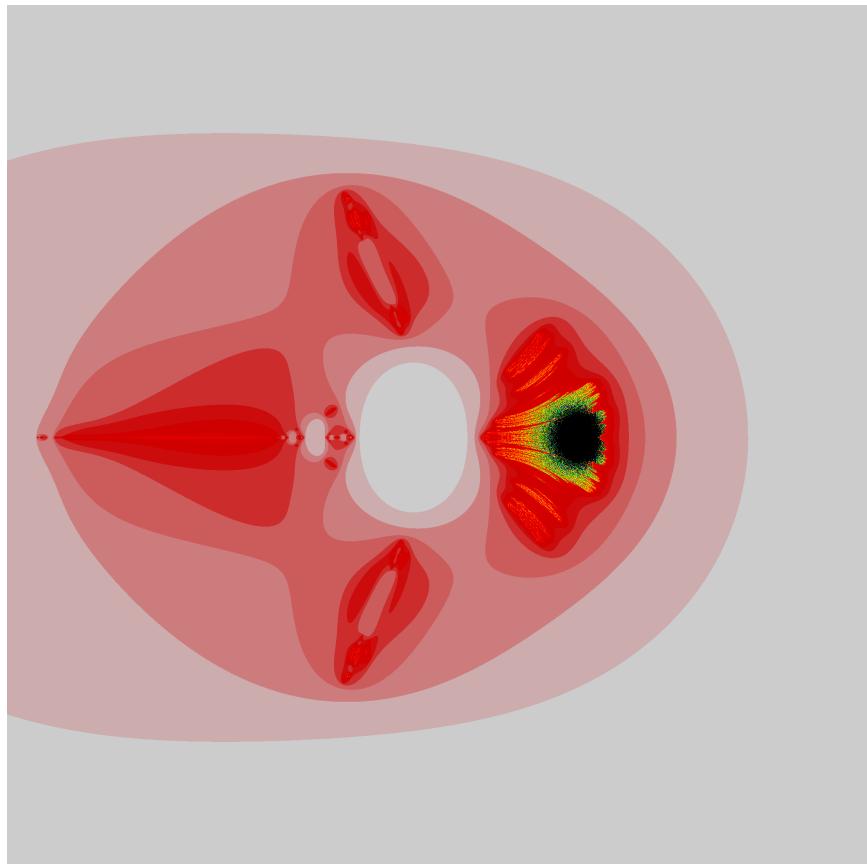


Figure 16: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.0891000000000000}{\bar{z}^2}$

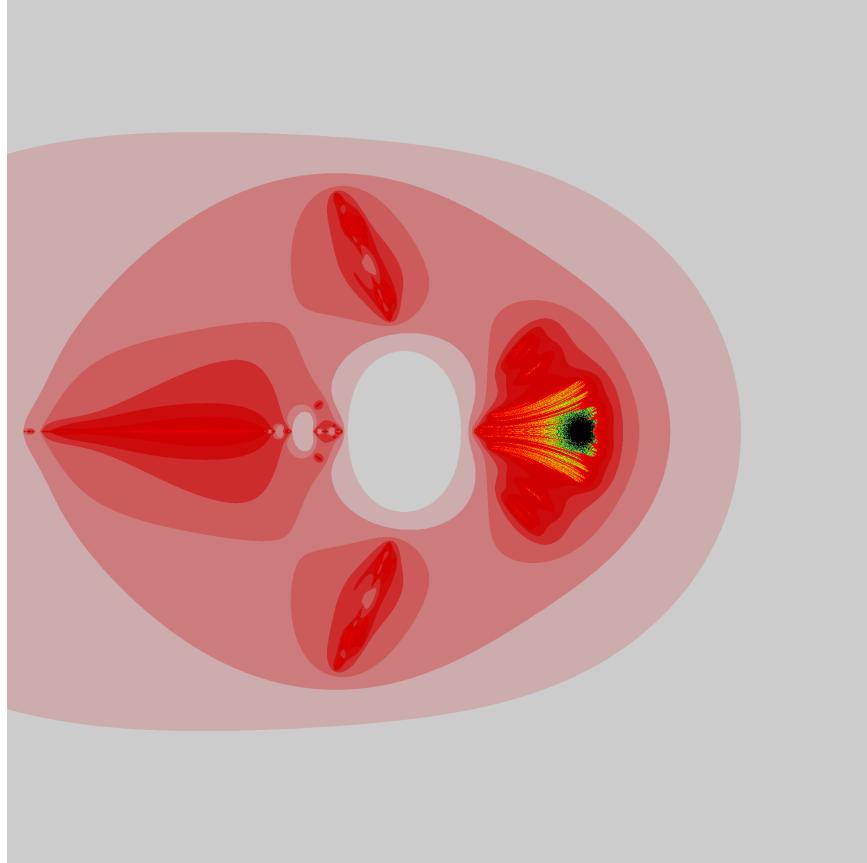


Figure 17: Parameter space image for param c with the equation $z^2 + 0 + \frac{0.09900000000000000}{z^2}$