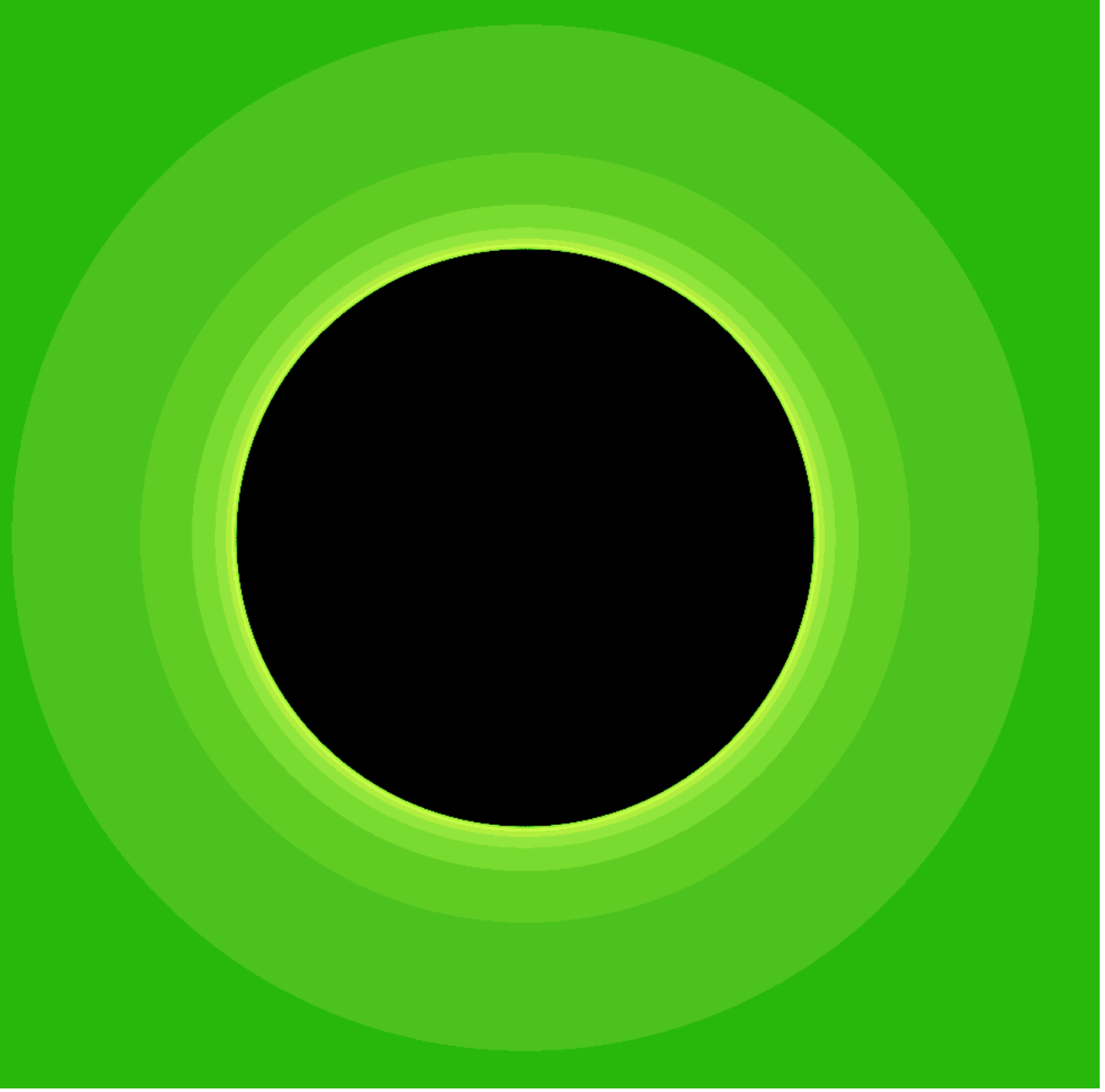
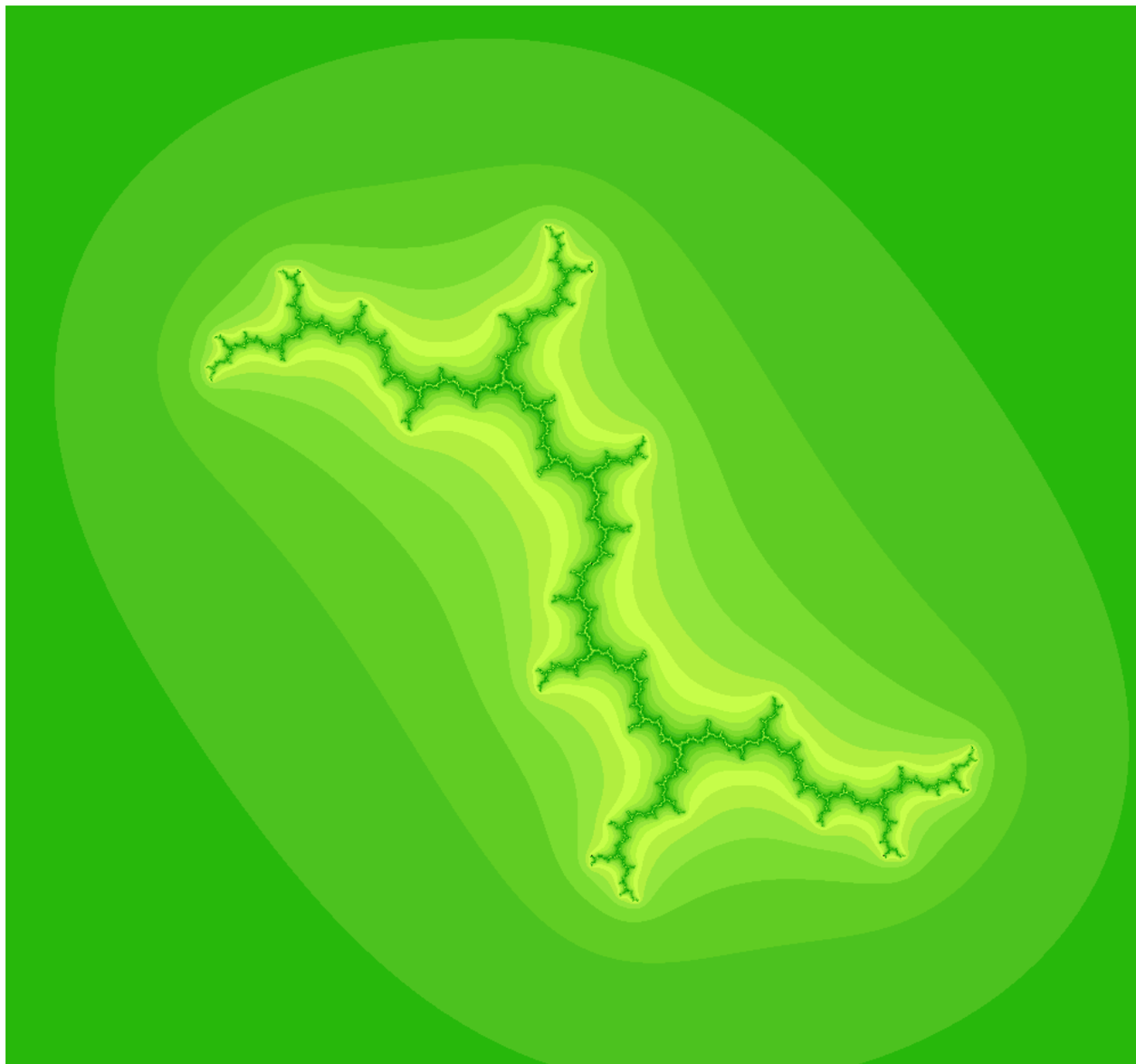
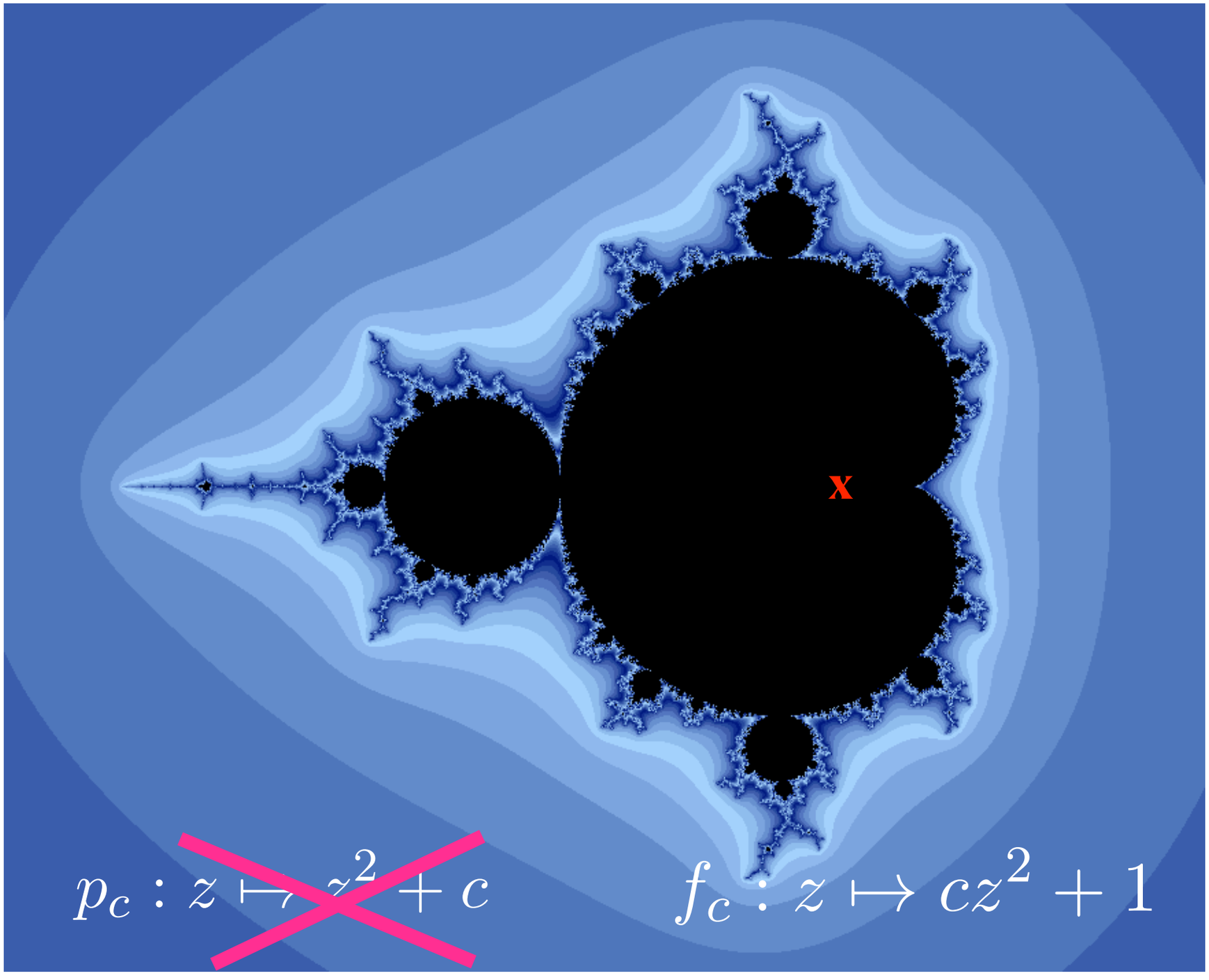
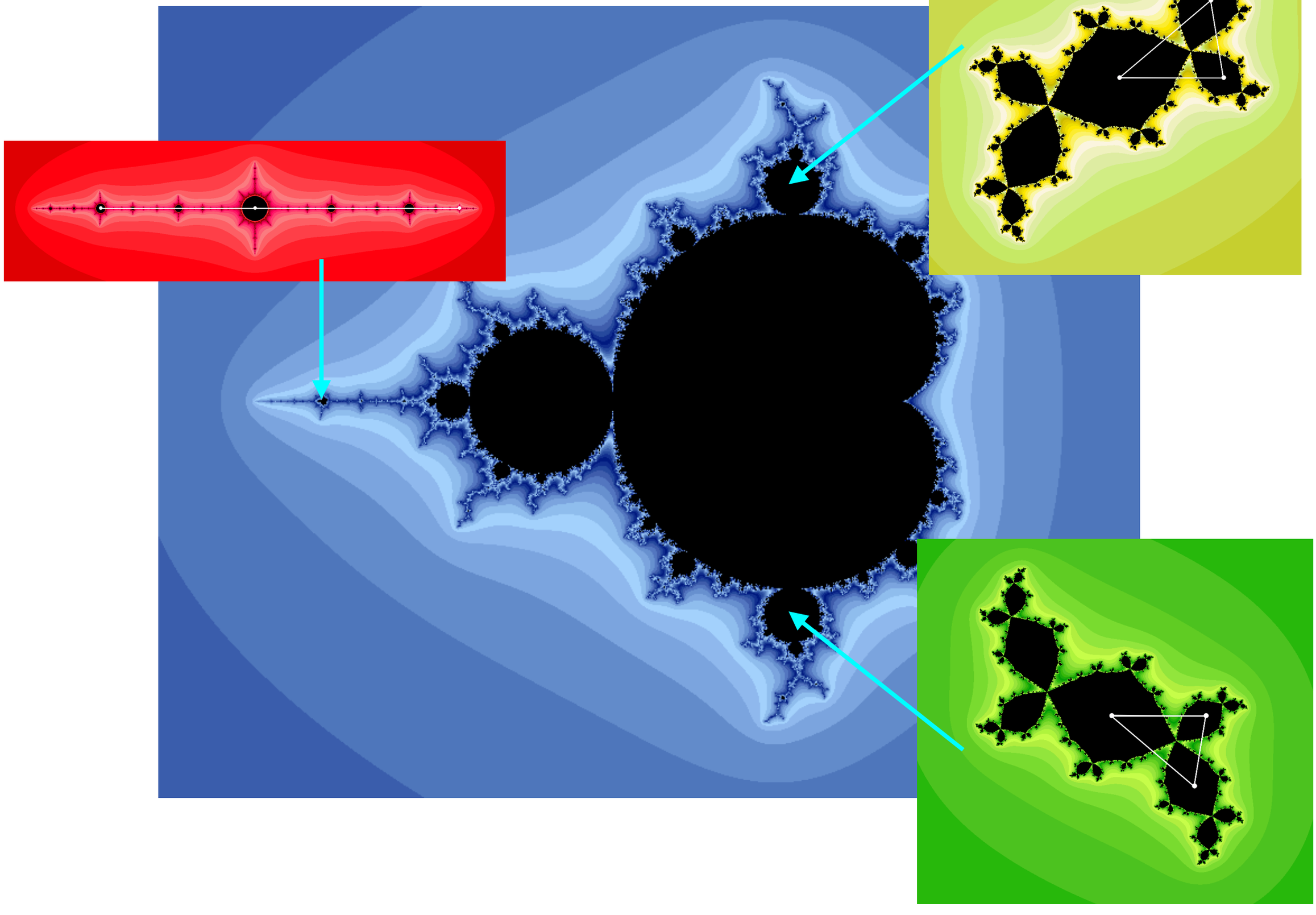




The moduli space of quadratic polynomials



The moduli space of quadratic s



Gleason polynomials

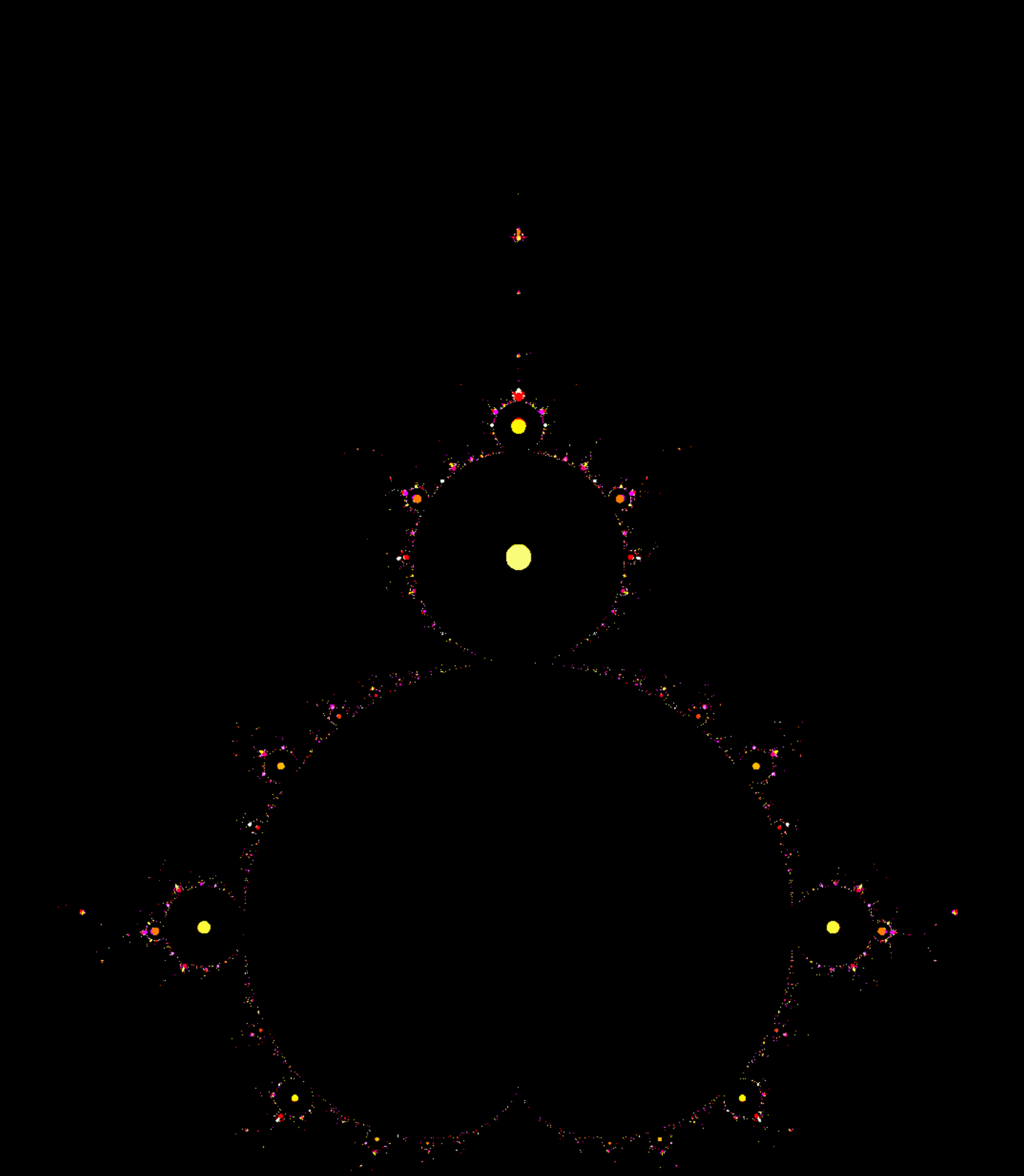
$$G_2 = c+1$$

$$G_3 = c^3+2c^2+c+1$$

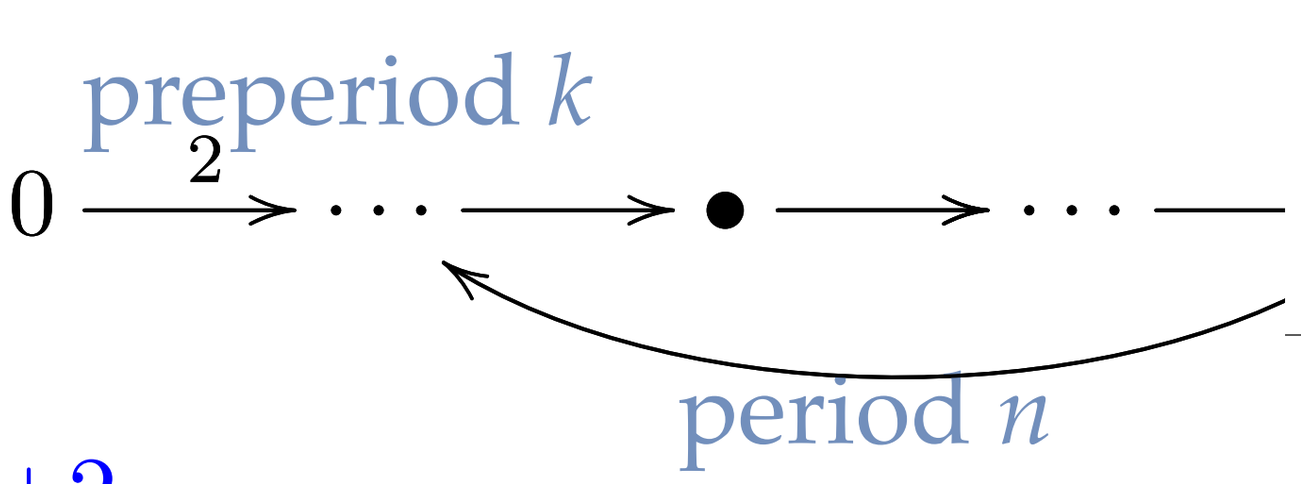
$$G_4 = c^6+3c^5+3c^4+3c^3+2c^2+1$$

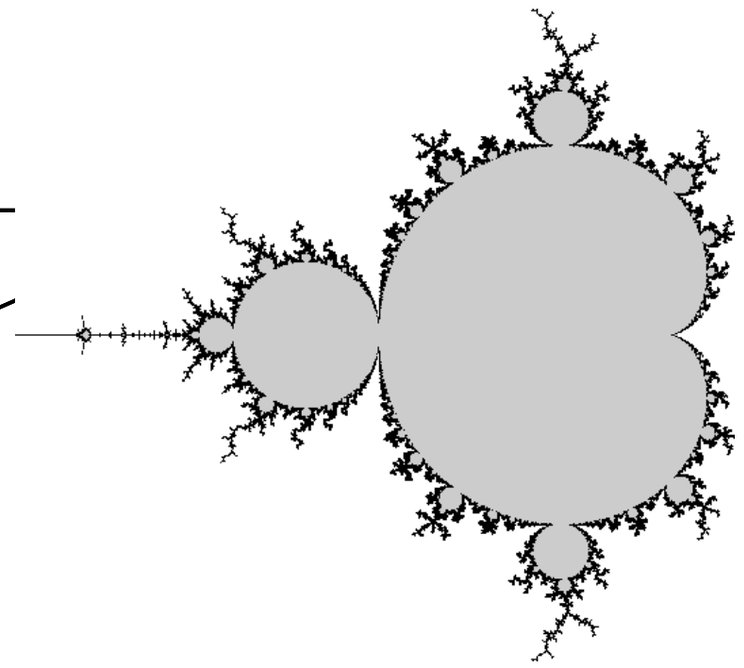
$$G_5 = c^{15}+8c^{14}+28c^{13}+60c^{12}+94c^{11}+116c^{10}+114c^9$$
$$+94c^8+69c^7+44c^6+26c^5+14c^4+5c^3+2c^2+c+1$$

$$\vdots$$



Misiurewicz polynomials





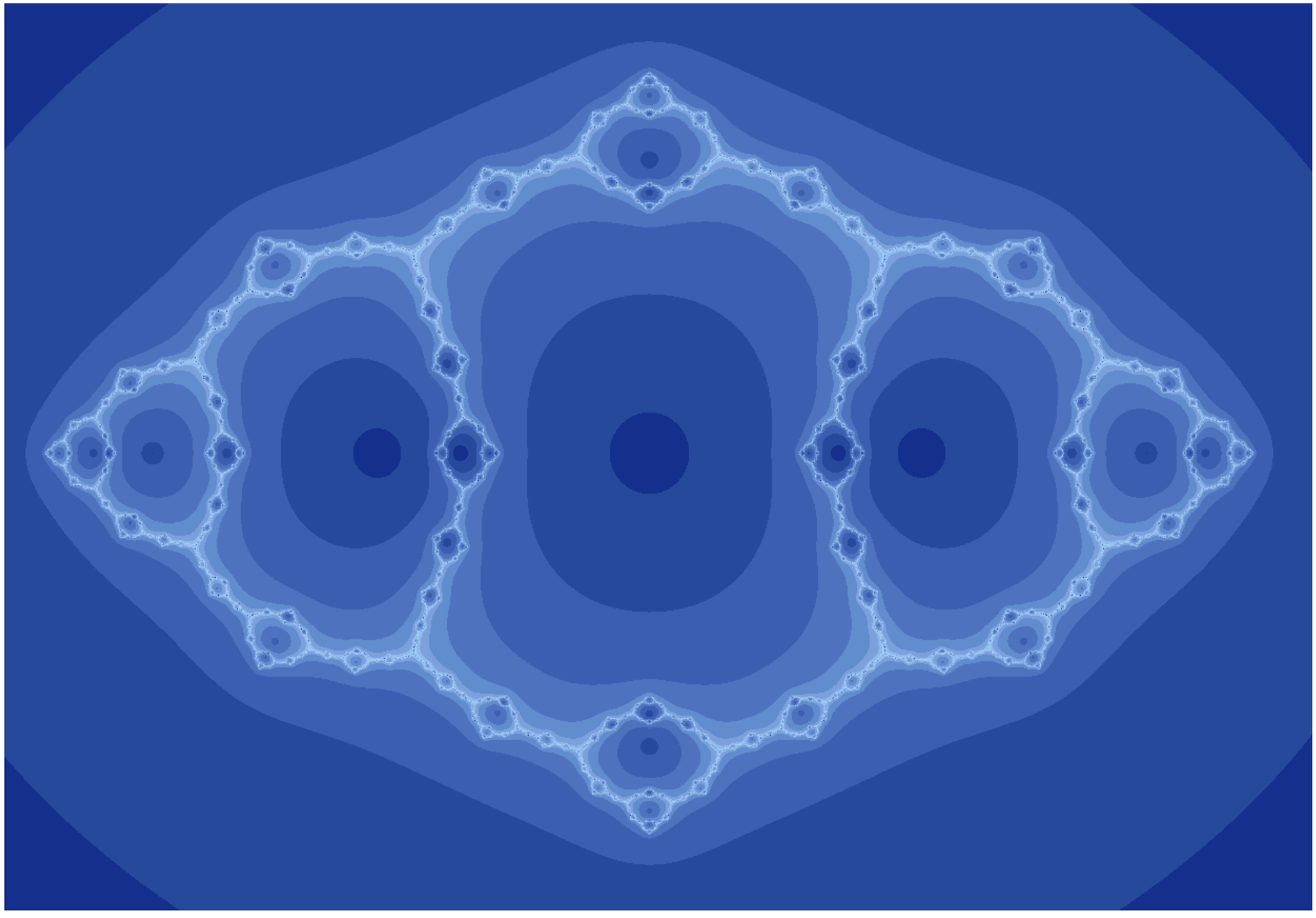
$M_{2,1} = c+2$

$M_{2,2} = c^2+1$

For which *(k,n)* is $M_{k,n}$ irreducible?

$$
\begin{aligned}
M_{4,3} = {} & c^{48} + 24\,c^{47} + 276\,c^{46} + 2036\,c^{45} + 10890\,c^{44} + 45276\,c^{43} + 153142\,c^{42} \\
& + 435210\,c^{41} + 1064138\,c^{40} + 2279440\,c^{39} + 4338224\,c^{38} + 7419308\,c^{37} \\
& + 11508550\,c^{36} + 16318092\,c^{35} + 21290910\,c^{34} + 25708386\,c^{33} + 28869914\,c^{32} \\
& + 30278528\,c^{31} + 29764224\,c^{30} + 27506264\,c^{29} + 23958072\,c^{28} + 19711336\,c^{27} \\
& + 15349808\,c^{26} + 11336496\,c^{25} + 7957154\,c^{24} + 5320536\,c^{23} + 3398212\,c^{22} \\
& + 2079772\,c^{21} + 1224054\,c^{20} + 695364\,c^{19} + 382430\,c^{18} + 203902\,c^{17} \\
& + 105317\,c^{16} + 52552\,c^{15} + 25268\,c^{14} + 11700\,c^{13} + 5242\,c^{12} + 2308\,c^{11} \\
& + 1022\,c^{10} + 470\,c^{9} + 220\,c^{8} + 96\,c^{7} + 36\,c^{6} + 8\,c^{5} + 1
\end{aligned}
$$

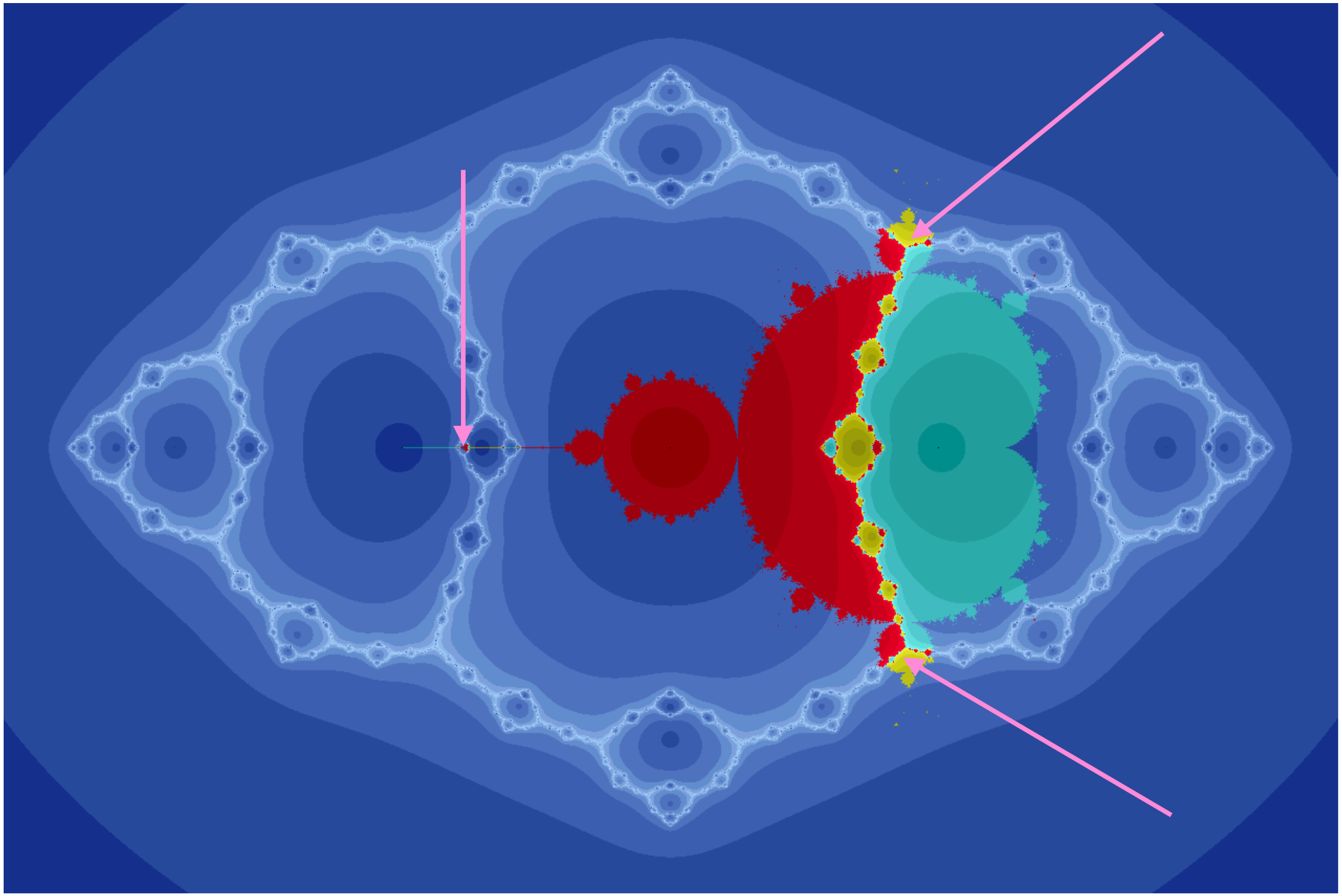
No dynamics



$$f : \mathbb{P}^1 \to \mathbb{P}^1$$

$$f : z \mapsto 1 - 1/z^2$$

$$0 \xrightarrow{2} \infty \xrightarrow{2} 1$$



History and some recent / current work

Bartholdi + Nekrashevych:

Twisting rabbits in Marseille

McMullen ⟶ Fornaess + Sibony

History and some recent / current work

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Dupont: Lattès maps
Crass: symmetries
Bottcher coordinates: Buff, Epstein, Koch
Eigenvalues: Jonsson, Fornaess + Sibony
Astorg, Van Tu Le
PCF all the way down: Astorg
Sparse: Ingram, Ramadas, Silverman
Correspondences: Ramadas

Thank you!!