Singular Points of Complex Hypersurfaces (1968), p. 60.

The claim that my definition of the invariant $\mu$ “agrees with the various definitions (of multiplicity) used by algebraic geometers” is far from true. The invariant $\mu$ in this book has nothing to do with the usual concept of multiplicity.


For “circle-bundle” read: 2-sphere-bundle.


The discussion of Figure 11 claims that the following statement follows from a theorem of Mary Rees:

In any neighborhood of $\lambda_0 = -1/4$, there is a set of parameter values $\lambda$ of positive measure for which the Julia set of the map

$$f_\lambda(z) = \lambda(z + 2 + 1/z)$$

is the entire Riemann sphere.

I don’t know whether this statement is true; but the proof is certainly wrong. Her theorem requires a non-degeneracy condition which is clearly not satisfied in this example since the critical point $-1$ for this family is persistantly pre-periodic, with $-1 \mapsto 0 \mapsto \infty = f_\lambda(\infty)$.

\[\text{---}\]

\[1\text{See page 384 of “Positive measure sets of ergodic rational maps”, Ann. Sci. Ecole Norm. Sup. 19 (1986). In order to test the non-degeneracy condition, it is best to make the substitution } w = 1/z, \text{ in order to place the post-critical fixed point in the finite plane,}\]