Daniel Cuzzocreo, Joanna Furno* (jfurno@math.uh.edu), Kenneth Jacobs and Scott Kaschner. *Seeing Repelling Dynamics. Preliminary report.

Many algorithms for drawing Julia sets in complex dynamics rely on detecting attracting behavior to draw Fatou components. When a rational map has no attracting cycles, we must use another algorithm, such as calculating random preimages. Many current algorithms for drawing bifurcation loci in parameter space rely on detecting attracting behavior. In joint work with Daniel Cuzzocreo, Kenneth Jacobs, and Scott Kaschner, we discuss how these algorithms can miss repelling behavior. (Received September 26, 2017)