

1135-37-1458 **John R. Doyle*** (jdoyle@latech.edu), Mathematics & Statistics, Louisiana Tech University, Ruston, LA 71272. *Dynamical modular curves and uniform boundedness of preperiodic points*. Preliminary report.

Morton and Silverman's uniform boundedness conjecture for preperiodic points of rational maps, which was originally stated over number fields, has a natural analogue over function fields. I will state the function field version of the conjecture and discuss a recent proof of this conjecture for the family $f_c(z) = z^d + c$ with $d \geq 2$. The proof involves giving lower bounds on the gonality of (the geometric components of) the associated dynamical modular curves. This is joint work with Bjorn Poonen. (Received September 22, 2017)