

1154-11-2083      **Michelle Manes\*** ([mmanes@math.hawaii.edu](mailto:mmanes@math.hawaii.edu)), Department of Mathematics, 2565 McCarthy Mall, Keller 401A, Honolulu, HI 96822, and **Bella Tobin**. *Post-critically finite cubic polynomials*. Preliminary report.

We find all cubic post-critically finite (PCF) polynomials defined over  $\mathbb{Q}$ , up to conjugacy over  $\mathrm{PGL}_2(\bar{\mathbb{Q}})$ . The techniques involve finding normal forms for cubic polynomials that respect field of definition, adapting some techniques of Ingram on coefficient bounds, and a bit of Sage computation. The same ingredients allow us to tackle questions of potential good reduction for these functions. (Received September 17, 2019)