

Potential Good Reduction and PCF Maps

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Many researchers working in arithmetic dynamics think of "post-critically finite" functions as the dynamical analog of what we call "complex multiplication" in the world of arithmetic geometry. Abelian varieties with complex multiplication have a very nice property: "potential good reduction" at every prime. Pursuing the analogy between dynamics and geometry, it would be natural to hope that PCF functions enjoy a similar property. In this talk, I'll explain some recent results that show the story in dynamics is much more complicated than that.