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Chatchawan Panraksa* (chatchawan.pan@mahidol.edu), Mahidol University International College, 999 Phutthamonthon 4 Road, Salaya, Nakhonpath 73170, Thailand. *Arithmetic Dynamics of $f(x) = x^d + c$.*

Arithmetic dynamics is a combination of dynamical systems and number theory. In this talk, we discuss the rational periodic points of polynomials in the form $f(x) = x^d + c$. We also discuss Morton and Silverman's uniform boundedness conjecture. It states that the number of periodic points of any rational function with rational coefficients is bounded by a constant depending only on the degree of the function. The conjecture is still unsolved even for quadratic polynomials. (Received September 25, 2018)