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Nataliia Goncharuk* (natasha@urkud.name) and **Yuri Kudryashov**. *Polynomial foliations of C^2 : cheap complex limit cycles and leaves of high genus.*

Based on the joint work with Yu. Kudryashov. We present a simple criterion for an analytic foliation of a two-dimensional complex manifold to have infinitely many homologically independent complex limit cycles (i.e. closed loops on the leaves with non-trivial holonomy). I will also address our earlier results: for most of the foliations in CP^2 with a certain symmetry, most leaves have an infinite genus; each degree- n polynomial foliation in C^2 can be perturbed in the class of degree- n polynomial foliations in C^2 so that a perturbed foliation has a (non-algebraic) leaf with at least $(n+1)(n+2)/2-4$ handles. (Received September 02, 2019)