# Local cyclicity for low degree families of centers

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The problem of finding lower bounds for the number of limit cycles of small amplitude bifurcating from a monodromic point is studied by fixing the center and perturbing inside the full class of planar vector fields of degree $n$. We will see that these values can depend on the parameters of the chosen family of centers. Moreover, how we can find special values such that the local cyclicity is non-generic. In fact, it is higher and we can get more limit cycles than expected. We will use higher-order developments to study versal unfoldings providing the best (up to now) lower bounds for the number of limit cycles bifurcating from a nondegenerate equilibrium point of center-focus type for low degree values of $n$.