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Erik Lundberg* (elundber@fau.edu). *Limit cycles in random polynomial systems.*

We study the number and distribution of the limit cycles of a planar vector field whose component functions are random polynomials. We present estimates for the number of limit cycles in both perturbative and non-perturbative settings. The proofs use novel combinations of techniques from dynamical systems and random analytic functions. (Received August 17, 2020)