

**ABOUT DULAC'S PROBLEM ON
NON-ACCUMULATION OF LIMIT CYCLES IN
DIMENSION THREE**

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Dulac's Theorem (proved independently by Ilyashenko and Écalle) asserts that if there is no accumulation of limit cycles at a singular point of an analytic planar vector field, unless it has a center configuration. In analogy with it, we say that a singular point p of a three dimensional vector field has the Dulac's property if there is no accumulation of limit cycles or there are finitely many invariant surfaces in restriction to which the vector field has a center configuration. In this talk we prove Dulac's property when the vector field has two complex non-real eigenvalues.

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