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S. Berhanu and **J. Hounie*** (hounie@dm.ufscar.br), Departamento de Matemática, UFSCar, São Carlos, SP, 13.565-905, Brazil. *A Rudin-Carleson theorem for planar vector fields*. Preliminary report.

Consider a subset E of the boundary \mathbb{T} of the unit disc $D \subset \mathbb{C}$ and a complex valued continuous function f defined on E . The Rudin-Carleson theorem states that there exists a continuous function F on \overline{D} which is holomorphic on D , coincides with f on E and satisfies $\sup |F| \leq \sup |f|$. We show that the theorem remains valid if the algebra of holomorphic functions is replaced by the algebra of homogeneous solutions of any given locally solvable real analytic vector field defined on a neighborhood of \overline{D} . (Received January 16, 2008)