962-12-1157 wai yan Pong* (waipong@math.uiuc.edu), 273 Altgeld Hall, 1409 West Greeen Street, Urbana, IL 61801. On a result of Rosenlicht. Preliminary report.

We will discuss a model theoretic proof of the following result of Rosenlicht along the lines suggested by Hrushovski and Itai. Let F be a differential field such that the C the field of constants of F is algebraically closed. Let $f(z) \in C(z)$ and a be a solution of the differential equation z' = f(z), where a is transcendental over F. Suppose that $f(z)^{-1}$ is not of the form $c\frac{\partial u}{\partial z}/u$ or $c\frac{\partial v}{\partial z}$ for any $u, v \in C(z), c \in C$. Then we have $C_{F(a)} = C$. (Received October 02, 2000)