1067-11-204 **Amara Chandoul*** (amarachandoul@yahoo.fr), Sfax, Tunisia. *On periodic Jacobi-Perron algorithm over formal power series field.* Preliminary report.

In this paper we are able to prove that over any formal power series field extension of degree $n+1$, $\mathbb{F}_q[X][\rho]$, there is a vector $(\omega_1, \ldots, \omega_n)$ in $(\mathbb{F}_q[X][\rho])^n$, witch is periodic by the Dubois version of the Jacobi-Perron algorithm. we prove also that there is no algebraic formal series ω such that the vector (ω, ω^2) is 2-purely periodic by the homogenous version of Jacobi-Perron algorithm and we give a characterization of vector (ω, ω^2) which is 1 and 3-purely periodic by it. We conjecture that this result holds for $2n$ and $2n+1$. (Received August 03, 2010)